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=> d his

     (FILE 'HOME' ENTERED AT 15:17:58 ON 15 JUN 2005)

     FILE 'HCAPLUS' ENTERED AT 15:19:27 ON 15 JUN 2005
L1            2 US20040192929/PN OR IT2003-MI61#/AP,PRN

     FILE 'REGISTRY' ENTERED AT 15:20:24 ON 15 JUN 2005

     FILE 'HCAPLUS' ENTERED AT 15:20:26 ON 15 JUN 2005
L2            TRA L1 1- RN :       22 TERMS

     FILE 'REGISTRY' ENTERED AT 15:20:26 ON 15 JUN 2005
L3           22 SEA L2

     FILE 'WPIX' ENTERED AT 15:20:28 ON 15 JUN 2005
L4            2 US20040192929/PN OR IT2003-MI61#/AP,PRN

=> b hcap
FILE 'HCAPLUS' ENTERED AT 15:20:59 ON 15 JUN 2005
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FILE COVERS 1907 - 15 Jun 2005 VOL 142 ISS 25
FILE LAST UPDATED: 14 Jun 2005  (20050614/ED)

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 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> d all l1 tot

L1   ANSWER 1 OF 2  HCAPLUS  COPYRIGHT 2005 ACS on STN
AN   2004:802613  HCAPLUS
DN   141:314329
ED   Entered STN:  01 Oct 2004
TI   A process for preparation of organic compounds containing sulfinyl or
     sulfonyl group via oxidation of thioethers by phthalimidoperhexanoic acid
IN   Allegrini, Pietro; Napoletano, Caterina; Razzetti, Gabriele; Castaldi,
     Graziano
PA   Dinamite Dipharma S.p.A., Italy
SO   U.S. Pat. Appl. Publ., 5 pp.
     CODEN: USXXCO
DT   Patent
LA   English
IC   ICM  C07C317-02
INCL 548366100; 564162000; 568027000; 568028000
CC   28-9 (Heterocyclic Compounds (More Than One Hetero Atom))
     Section cross-reference(s): 45
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    --------------------   --------
PI   US 2004192929        A1    20040930    US 2004-801608         20040317 <--
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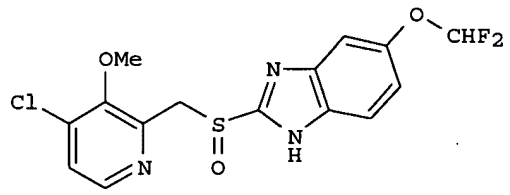
EP 1466897 A1 20041013 EP 2004-5420 20040308 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK
CA 2461833 AA 20040928 CA 2004-2461833 20040325 <--
PRAI IT 2003-MI617 A 20030328 <--
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2004192929	ICM	C07C317-02
	INCL	548366100; 564162000; 568027000; 568028000
US 2004192929	NCL	548/366.100; 564/162.000; 568/027.000; 568/028.000
	ECLA	C07C315/02; C07D401/12+235C+211 <--
EP 1466897	ECLA	C07C315/02; C07D401/12+235C+211 <--

OS CASREACT 141:314329
GI



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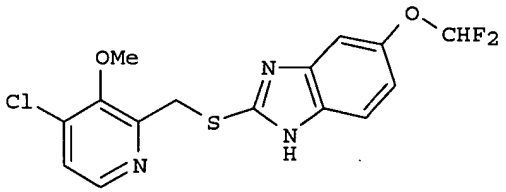

II

AB The invention relates to a process of oxidation of thioethers to sulfoxides or sulfones. The oxidation of sulfoxides to sulfones by treatment of thioethers or sulfoxides with an oxidizing amount of phthalimidoperhexanoic acid is useful for the preparation of pharmaceuticals for human or veterinary use. For instance, benzimidazole derivative I was prepared via oxidation of II by phthalimidoperhexanoic acid with a yield of 88.8% (example 1). Phthalimidoperhexanoic acid is a stable, com. available, solid, and cheap oxidizing agent.

ST sulfinyl sulfonyl compd manuf prepn; thioether oxidn phthalimidoperhexanoic acid

IT Oxidation
(catalytic; process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by phthalimidoperhexanoic acid)

IT Oxidation catalysts
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by phthalimidoperhexanoic acid)

IT Sulfonyl compounds
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by phthalimidoperhexanoic acid)

IT Thioethers
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by phthalimidoperhexanoic acid)

IT Functional groups

(sulfinyl group; process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by phthalimidoperhexanoic acid)

IT 68693-11-8P, Modafinil
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by phthalimidoperhexanoic acid)

IT 38194-50-2P, Sulindac 118779-53-6P 409098-86-8P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by phthalimidoperhexanoic acid)

IT 139-65-1 23593-22-8 36187-57-2, 1-(4-Fluorophenyl)-2-(4-methylthiophenyl)ethanone 49627-27-2 63547-22-8, 2-[(Diphenylmethyl)thio]acetic acid 68524-30-1 73590-85-9 102625-64-9 117977-21-6 368890-20-4 765929-44-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by phthalimidoperhexanoic acid)

IT 36187-64-1P 63547-24-0P, 2-[(Diphenylmethyl)sulfinyl]acetic acid
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by phthalimidoperhexanoic acid)

IT 128275-31-0, Phthalimidoperhexanoic acid
RL: RGT (Reagent); RACT (Reactant or reagent)
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by phthalimidoperhexanoic acid)

L1 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:794540 HCAPLUS
DN 141:282828
ED Entered STN: 29 Sep 2004
TI Process for the preparation of enteric-coated and/or controlled-release medicaments containing proton pump inhibitors
IN Predieri, Giulio
PA Acme Drugs S.r.l., Italy
SO Eur. Pat. Appl., 8 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM A61K009-16
ICS A61K009-50
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1462097	A1	20040929	EP 2004-7039	20040324 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
PRAI	IT 2003-MI616	A	20030328 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1462097	ICM	A61K009-16
	ICS	A61K009-50
EP 1462097	ECLA	A61K009/50H6B; A61K009/50P; A61K031/4439 <--

AB A process for the preparation of enteric-coated and/or controlled-release compns. for oral use containing active principles sensitive to gastrointestinal environment and/or degradable in acidic media, in particular proton pump inhibitors, comprises (A) homogeneous mixing of the active principles with granulation excipients, followed by dry granulation and calibration; (B) spheronization of the granules; and (C) spray coating with a gastroprotective polymer. The compns. are useful for veterinary, dietetic or pharmaceutical active principles sensitive to the human and

animal gastrointestinal environment. For example, enteric-coated granules contained omeprazole 28.30 g, lactose D80 58.38 g, Aerosil 200 (anhydrous colloidal silica) 0.88 g, magnesium stearate 0.44 g, and Eudragit L30D55 enteric coating 12.00 g. The medicament ensures protection of the active ingredient from acidic media; more than 90% of the active ingredient remains unchanged after 60 min at pH 2. The medicament is effective, safe, and easy to use in the therapy of gastric ulcer in horses.

ST proton pump inhibitor oral enteric coated controlled release

IT Drug delivery systems
(capsules, enteric-coated; preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

IT Granulation
(dry granulation; preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

IT Coating materials
(enteric polymers; preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

IT Drug delivery systems
(enteric-coated; preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

IT Ulcer
(gastric, treatment of; preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

IT Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(gastroprotective, coating; preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

IT Drug delivery systems
(gels, oral; preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

IT Drug delivery systems
(oral, controlled-release; preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

IT Drug delivery systems
(pastes, oral; preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

IT Transport proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(proton pump, inhibitors; preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

IT Coating process
(spray; preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

IT Drug delivery systems
(syrups; preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

IT Drug delivery systems
(tablets, enteric-coated; preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

IT Equus caballus
(treatment of gastric ulcer in; preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

IT Stomach, disease
(ulcer, treatment of; preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

IT 25212-88-8, Eudragit L30D55
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(enteric coating; preparation of enteric-coated and/or controlled-release

oral compns. containing drugs sensitive to gastrointestinal environment)
IT 73590-58-6, Omeprazole 102625-70-7, Pantoprazole 103577-45-3, Lansoprazole
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preparation of enteric-coated and/or controlled-release oral compns. containing drugs sensitive to gastrointestinal environment)

=> b reg

FILE 'REGISTRY' ENTERED AT 15:21:06 ON 15 JUN 2005
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 14 JUN 2005 HIGHEST RN 852282-01-0
DICTIONARY FILE UPDATES: 14 JUN 2005 HIGHEST RN 852282-01-0

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TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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* *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
* *
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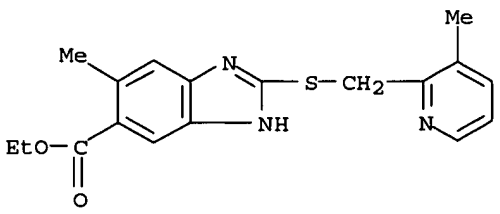
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> d ide l3 tot

L3 ANSWER 1 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **765929-44-0** REGISTRY
ED Entered STN: 20 Oct 2004
CN 1H-Benzimidazole-5-carboxylic acid, 6-methyl-2-[[(3-methyl-2-pyridinyl)methyl]thio]-, ethyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C18 H19 N3 O2 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



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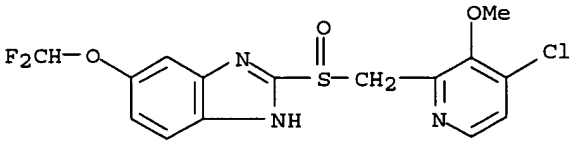
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

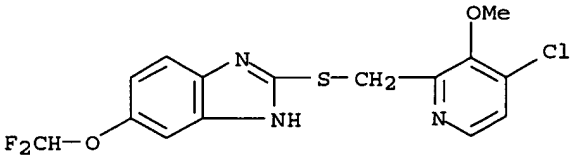
L3 ANSWER 2 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **409098-86-8** REGISTRY
ED Entered STN: 30 Apr 2002
CN 1H-Benzimidazole, 2-[[(4-chloro-3-methoxy-2-pyridinyl)methyl]sulfinyl]-5-(difluoromethoxy)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 5-(Difluoromethoxy)-2-[[(3-methoxy-4-chloro-2-pyridinyl)methyl]sulfinyl]-1H-benzimidazole
CN 5-(Difluoromethoxy)-2-[[(4-chloro-3-methoxy-2-pyridinyl)methyl]sulfinyl]-1H-benzimidazole
FS 3D CONCORD
MF C15 H12 Cl F2 N3 O3 S
CI COM
SR CA
LC STN Files: CA, CAPLUS, CASREACT, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

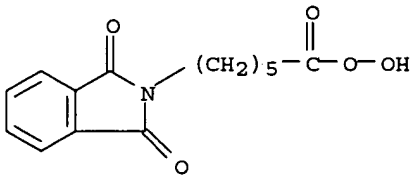
L3 ANSWER 3 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **368890-20-4** REGISTRY
ED Entered STN: 12 Nov 2001
CN 1H-Benzimidazole, 2-[[(4-chloro-3-methoxy-2-pyridinyl)methyl]thio]-5-(difluoromethoxy)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2-[[(4-Chloro-3-methoxy-2-pyridyl)methyl]thio]-5-(difluoromethoxy)-1H-benzimidazole
CN 5-(Difluoromethoxy)-2-[[(3-methoxy-4-chloro-2-pyridinyl)methyl]mercapto]-1H-benzimidazole
CN 5-(Difluoromethoxy)-2-[[(4-chloro-3-methoxy-2-pyridinyl)methyl]thio]-1H-benzimidazole
FS 3D CONCORD
MF C15 H12 Cl F2 N3 O2 S
SR CA
LC STN Files: CA, CAPLUS, CASREACT, CHEMCATS, USPAT2, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 4 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **128275-31-0** REGISTRY
ED Entered STN: 20 Jul 1990
CN 2H-Isoindole-2-hexaneperoxoic acid, 1,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN ε-(Phthalimidoperoxy)hexanoic acid
CN 6-(Phthalimidoperoxy)hexanoic acid
CN 6-Phthalimidohexaneperoxoic acid
CN Eureco
CN Eureco HC
CN Eureco HCL 11
CN Eureco HCL 17
CN Eureco W
CN Phthalimidoperhexanoic acid
FS 3D CONCORD
DR 249937-65-3
MF C14 H15 N O5
CI COM
SR CA
LC STN Files: BIOSIS, CA, CAPLUS, CASREACT, CBNB, CHEMLIST, TOXCENTER, USPAT2, USPATFULL



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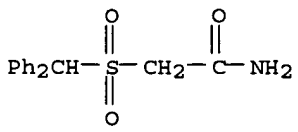
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
141 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 5 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **118779-53-6** REGISTRY
ED Entered STN: 03 Feb 1989
CN Acetamide, 2-[(diphenylmethyl)sulfonyl]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2-(Benzhydrylsulfonyl)acetamide
CN CRL 41056
FS 3D CONCORD
MF C15 H15 N O3 S
SR CA
LC STN Files: ANABSTR, CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL



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11 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 6 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **117977-21-6** REGISTRY
ED Entered STN: 16 Dec 1988
CN 1H-Benzimidazole, 2-[[[4-(3-methoxypropoxy)-3-methyl-2-pyridinyl]methyl]thio]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2-[[[3-Methyl-4-(3-methoxypropoxy)-2-pyridyl]methyl]thio]-1H-benzimidazole
CN 2-[[[4-(3-Methoxypropoxy)-3-methyl-2-pyridinyl]methyl]thio]-1H-benzimidazole
CN H 295/43
FS 3D CONCORD
MF C18 H21 N3 O2 S
CI COM
SR CA
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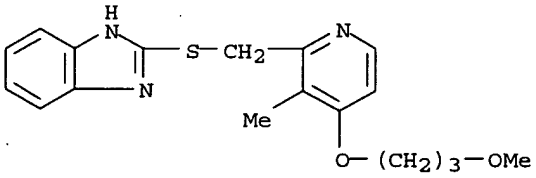

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30 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 7 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **103577-45-3** REGISTRY
ED Entered STN: 02 Aug 1986
CN 1H-Benzimidazole, 2-[[[3-methyl-4-(2,2,2-trifluoroethoxy)-2-pyridinyl]methyl]sulfinyl]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN (±)-Lansoprazole
CN 2-[[[3-Methyl-4-(2,2,2-trifluoroethoxy)-2-pyridyl]methyl]sulfinyl]-1H-benzimidazole
CN A 65006
CN AG 1749
CN Agopton
CN Ilsatec
CN Ketian
CN Lancid
CN Lanfast
CN Lanproton
CN Lansopep
CN Lansophed
CN Lansoprazole
CN Lansox
CN Lanston
CN Lanz
CN Lanzol 30
CN Lanzopral
CN Lanzor
CN Lapraz
CN Ogast
CN Ogastro

Search done by Noble Jarrell

CN PP/K-10
CN Prevacid
CN Promp
CN Prosogan
CN Suprecid
CN Takepron
CN Ulpax
CN Zoton
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SR CA
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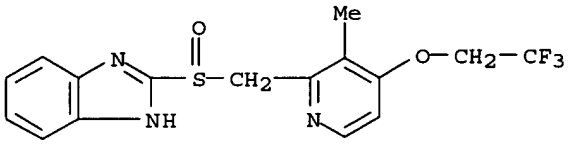
Other Sources: WHO



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1200 REFERENCES IN FILE CA (1907 TO DATE)
17 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1212 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 8 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **102625-70-7** REGISTRY
ED Entered STN: 14 Jun 1986
CN 1H-Benzimidazole, 5-(difluoromethoxy)-2-[[(3,4-dimethoxy-2-pyridinyl)methyl]sulfinyl]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 5-(Difluoromethoxy)-2-[[(3,4-dimethoxy-2-pyridinyl)methyl]sulfinyl]-1H-benzimidazole
CN 5-(Difluoromethoxy)-2-[[(3,4-dimethoxy-2-pyridyl)methyl]sulfinyl]-1H-benzimidazole
CN BY 1023
CN Pantoprazole
CN Pantozol
CN SKF 96022
FS 3D CONCORD
DR 154644-14-1
MF C16 H15 F2 N3 O4 S
CI COM
SR CA
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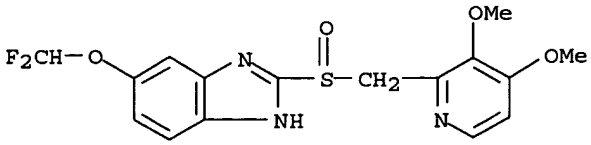
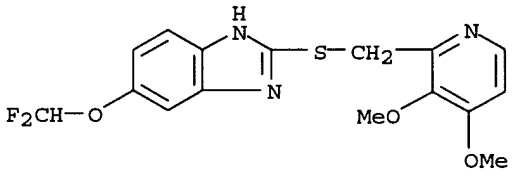


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

604 REFERENCES IN FILE CA (1907 TO DATE)
20 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
610 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 9 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **102625-64-9** REGISTRY
ED Entered STN: 14 Jun 1986
CN 1H-Benzimidazole, 5-(difluoromethoxy)-2-[[(3,4-dimethoxy-2-pyridinyl)methyl]thio]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 5-(Difluoromethoxy)-2-[[(3,4-dimethoxy-2-pyridinyl)methyl]thio]-1H-benzimidazole
CN 5-(Difluoromethoxy)-2-[[(3,4-dimethoxy-2-pyridyl)methyl]thio]-1H-benzimidazole
CN H 258/28
FS 3D CONCORD
MF C16 H15 F2 N3 O3 S
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS, PS, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)

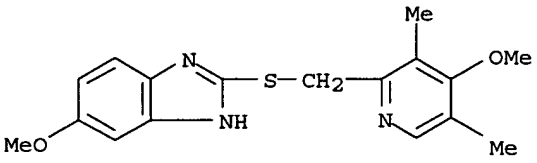


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

26 REFERENCES IN FILE CA (1907 TO DATE)
26 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 10 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **73590-85-9** REGISTRY
ED Entered STN: 16 Nov 1984
CN 1H-Benzimidazole, 5-methoxy-2-[[(4-methoxy-3,5-dimethyl-2-pyridinyl)methyl]thio]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2-[[(3,5-Dimethyl-4-methoxy-2-pyridyl)methyl]thio]-5-methoxy-1H-benzimidazole
CN 2-[[(3,5-Dimethyl-4-methoxy-2-pyridyl)methyl]thio]-5-methoxybenzimidazole
CN 5-Methoxy-2-[[(4-methoxy-3,5-dimethyl-2-pyridinyl)methyl]thio]-1H-benzimidazole
CN 5-Methoxy-2-[[(4-methoxy-3,5-dimethyl-2-pyridyl)methyl]thio]-1H-benzimidazole
CN H 168/22

CN Omeprazole sulfide
CN Pyrmetazole
CN Ufiprazole
FS 3D CONCORD
MF C17 H19 N3 O2 S
CI COM
LC STN Files: ANABSTR, BEILSTEIN*, BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, DDFU, DRUGU, IPA, MEDLINE, PHAR, PROUSDDR, PS, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: WHO

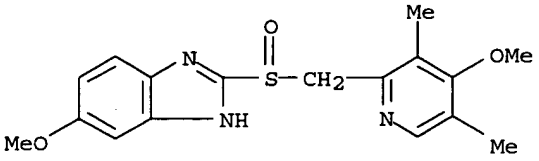


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

86 REFERENCES IN FILE CA (1907 TO DATE)
86 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 11 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN 73590-58-6 REGISTRY
ED Entered STN: 16 Nov 1984
CN 1H-Benzimidazole, 5-methoxy-2-[[(4-methoxy-3,5-dimethyl-2-pyridinyl)methyl]sulfinyl]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN (±)-Omeprazole
CN 2-[[(3,5-Dimethyl-4-methoxy-2-pyridyl)methyl]sulfinyl]-5-methoxy-1H-benzimidazole
CN 5-Methoxy-2-[[(4-methoxy-3,5-dimethyl-2-pyridyl)methyl]sulfinyl]-1H-benzimidazole
CN Acidex
CN Antra
CN Antra MUPS
CN Audazol
CN Aulcer
CN Belmazol
CN Ceprandal
CN Desec
CN Dizprazol
CN Dudencer
CN Elgam
CN Emeproton
CN Epirazole
CN Gastrimut
CN Gastroloc
CN Gastrozole
CN Gibancer
CN H 168/68
CN Indurgan
CN Inhibitron
CN Inhipump
CN Logastric
CN Lomac
CN Losec
CN Mepral
CN Miol

CN Miracid
CN Mopral
CN Ocid
CN Omapren
CN Omebeta 20
CN Omed
CN Omedar
CN OMEP
CN Omepradex
CN Omepral
CN Omeprazen
CN Omeprazole
CN Omeprazon
CN Omepril
CN Omezol
CN Omezzol
CN Omid
CN Omisec
CN Omizac
CN OMP
CN Ompanyt
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY
FS 3D CONCORD
DR 172964-80-6, 131959-78-9
MF C17 H19 N3 O3 S
CI COM
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, HSDB*, IMSCOSEARCH, IMSDRUGNEWS, IMSPATENTS, IMSRESEARCH, IPA, MEDLINE, MRCK*, PATDPASPC, PHAR, PIRA, PROMT, PROUSDDR, PS, RTECS*, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: WHO

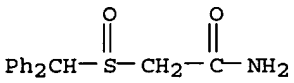


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2951 REFERENCES IN FILE CA (1907 TO DATE)
56 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2964 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 12 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN 68693-11-8 REGISTRY
ED Entered STN: 16 Nov 1984
CN Acetamide, 2-[(diphenylmethyl)sulfinyl]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN (±)-Modafinil
CN 2-(Benzhydrylsulfinyl)acetamide
CN CEP 1538
CN CRC 40476
CN CRL 40476
CN DEP 1538
CN Modafinil
CN Modaphonil
CN Modiodal

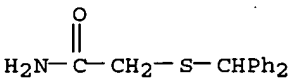
CN Provigil
FS 3D CONCORD
DR 112111-49-6
MF C15 H15 N O2 S
CI COM
LC STN Files: ADISINSIGHT, ADISNEWS, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, DDFU, DIOGENES, DRUGU, EMBASE, IMSCOSEARCH, IMSDRUGNEWS, IMSPATENTS, IMSRESEARCH, IPA, MEDLINE, MRCK*, NIOSHTIC, PATDPASPC, PHAR, PROMT, PROUSDDR, PS, RTECS*, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: WHO



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

296 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
300 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 13 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **68524-30-1** REGISTRY
ED Entered STN: 16 Nov 1984
CN Acetamide, 2-[(diphenylmethyl)thio]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2-(Benzhydrylthio)acetamide
CN 2-[(Diphenylmethyl)thio]acetamide
FS 3D CONCORD
MF C15 H15 N O S
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)

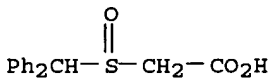


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

24 REFERENCES IN FILE CA (1907 TO DATE)
25 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 14 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **63547-24-0** REGISTRY
ED Entered STN: 16 Nov 1984
CN Acetic acid, [(diphenylmethyl)sulfinyl]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN (±)-Modafinic acid
CN (Benzhydrylsulfinyl)acetic acid
CN 2-[(Diphenylmethyl)sulfinyl]acetic acid
CN CRL 40467
CN Modafinil acid
FS 3D CONCORD
MF C15 H14 O3 S

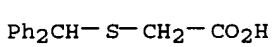
LC STN Files: ANABSTR, BIOSIS, CA, CAPLUS, CASREACT, IFICDB, IFIPAT, IFIUDB, MEDLINE, PS, TOXCENTER, USPAT2, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

24 REFERENCES IN FILE CA (1907 TO DATE)
25 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 15 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN 63547-22-8 REGISTRY
ED Entered STN: 16 Nov 1984
CN Acetic acid, [(diphenylmethyl)thio]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN (Benzhydrylthio)acetic acid
CN 2-(Benzhydrylthio)acetic acid
CN 2-[(Diphenylmethyl)thio]acetic acid
FS 3D CONCORD
MF C15 H14 O2 S
CI COM
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS, IFICDB, IFIPAT, IFIUDB, PS, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)



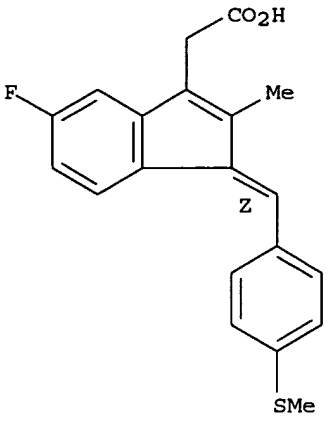
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

29 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
29 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 16 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN 49627-27-2 REGISTRY
ED Entered STN: 16 Nov 1984
CN 1H-Indene-3-acetic acid, 5-fluoro-2-methyl-1-[[4-(methylthio)phenyl]methylene]-, (1Z)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1H-Indene-3-acetic acid, 5-fluoro-2-methyl-1-[[4-(methylthio)phenyl]methylene]-, (Z)-
OTHER NAMES:
CN cis-Sulindac sulfide
CN Sulindac sulfide
CN Z-Sulindac sulfide
FS STEREOSEARCH
MF C20 H17 F O2 S
LC STN Files: ADISNEWS, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, NIOSHTIC, PROMT, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)

Double bond geometry as shown.

Search done by Noble Jarrell



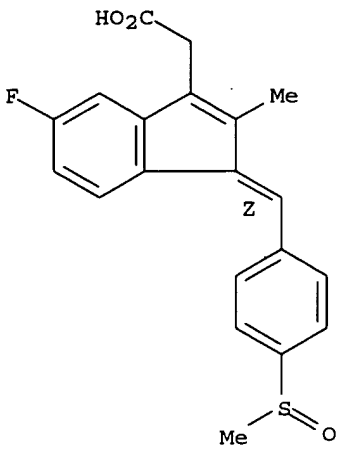
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

277 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
278 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 17 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **38194-50-2** REGISTRY
ED Entered STN: 16 Nov 1984
CN 1H-Indene-3-acetic acid, 5-fluoro-2-methyl-1-[[4-(methylsulfinyl)phenyl]methylene]-, (1Z)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1H-Indene-3-acetic acid, 5-fluoro-2-methyl-1-[[4-(methylsulfinyl)phenyl]methylene]-, (Z)-
OTHER NAMES:
CN Aflodac
CN Algocetil
CN Arthrocine
CN Artribid
CN cis-5-Fluoro-2-methyl-1-[(p-methylsulfinyl)benzylidenyl]indene-3-acetic acid
CN cis-Sulindac
CN Citireuma
CN Clinoril
CN Clisundac
CN Imbaral
CN MK 231
CN Mobilin
CN Reumofil
CN Reumyl
CN Sudac
CN Sulindac
CN Sulindac sulfoxide
CN Sulinol
CN Sulreuma
FS STEREOSEARCH
DR 49627-22-7
MF C20 H17 F O3 S
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DIOGENES, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IMSPATENTS, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PHAR, PROMT, PROUSDDR, PS, RTECS*, SPECINFO, TOXCENTER, USAN, USPAT2, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: EINECS**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)

Search done by Noble Jarrell

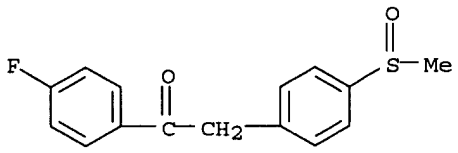
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1342 REFERENCES IN FILE CA (1907 TO DATE)
72 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1350 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 18 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **36187-64-1** REGISTRY
ED Entered STN: 16 Nov 1984
CN Ethanone, 1-(4-fluorophenyl)-2-[4-(methylsulfinyl)phenyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
DR 53933-83-8
MF C15 H13 F O2 S
LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL



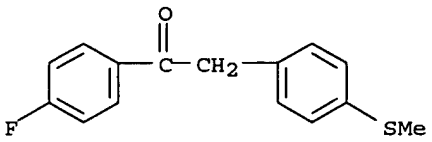
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 19 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **36187-57-2** REGISTRY
ED Entered STN: 16 Nov 1984
CN Ethanone, 1-(4-fluorophenyl)-2-[4-(methylthio)phenyl]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1-(4-Fluorophenyl)-2-(4-methylsulfanylphenyl)ethanone
CN 1-(4-Fluorophenyl)-2-(4-methylthiophenyl)ethanone
FS 3D CONCORD
MF C15 H13 F O S
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPATFULL

Search done by Noble Jarrell

(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

26 REFERENCES IN FILE CA (1907 TO DATE)
26 REFERENCES IN FILE CAPLUS (1907 TO DATE)

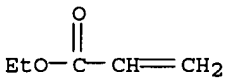
L3 ANSWER 20 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **25212-88-8** REGISTRY
ED Entered STN: 16 Nov 1984
CN 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Propenoic acid, ethyl ester, polymer with 2-methyl-2-propenoic acid (9CI)
CN Acrylic acid ethyl ester, polymer with methacrylic acid (8CI)
CN Methacrylic acid, polymer with ethyl acrylate (8CI)
OTHER NAMES:
CN Acrysol RM 4
CN AK 214-82
CN Alcogum
CN Alcogum L 11
CN Alcogum L 15
CN Alcogum L 21
CN ATX 01
CN Carbopol EP 2
CN Collicoat SR 30D
CN DR 1071
CN Ethyl acrylate-methacrylic acid copolymer
CN Ethyl acrylate-methacrylic acid polymer
CN Eudragit L 100-155
CN Eudragit L 100-55
CN Eudragit L 30D
CN Eudragit L 30D55
CN GBC 2600
CN GBC 2620AC
CN Kollicoat MAE
CN Kollicoat MAE 100P
CN Kollicoat MAE 30D
CN Kollicoat MAE 30DP
CN L 30D55
CN Luvimer MAE
CN MAE 30DP
CN Methacrylic acid-ethyl acrylate copolymer
CN Millitex PD 75
CN Poly(ethyl acrylate-methacrylic acid)
CN Primal RM 4
CN RDJ 31-1
CN Rhoplex 18
CN Rhoplex RM 4
CN RM 4
CN RM 4 (polymer)
CN Rohagit SD 15
CN Sipacril 2739OF
DR 163546-10-9, 95032-39-6, 83137-85-3, 87659-25-4, 52932-72-6, 100218-76-6, 286390-43-0

Search done by Noble Jarrell

MF (C5 H8 O2 . C4 H6 O2)x
CI PMS, COM
PCT Polyacrylic
LC STN Files: BIOBUSINESS, BIOSIS, CA, CAPLUS, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DRUGU, IFICDB, IFIPAT, IFIUDB, IPA, PIRA, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL, VETU
(*File contains numerically searchable property data)
Other Sources: DSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

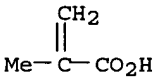
CM 1

CRN 140-88-5
CMF C5 H8 O2



CM 2

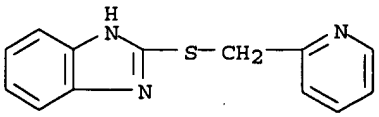
CRN 79-41-4
CMF C4 H6 O2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1377 REFERENCES IN FILE CA (1907 TO DATE)
31 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1380 REFERENCES IN FILE CAPLUS (1907 TO DATE)

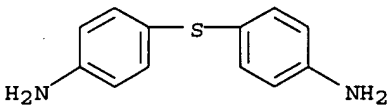
L3 ANSWER 21 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **23593-22-8** REGISTRY
ED Entered STN: 16 Nov 1984
CN 1H-Benzimidazole, 2-[(2-pyridinylmethyl)thio]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Benzimidazole, 2-[(2-pyridylmethyl)thio]- (8CI)
OTHER NAMES:
CN 2-(2-Pyridylmethylthio)benzimidazole
FS 3D CONCORD
DR 71858-05-4
MF C13 H11 N3 S
CI COM
LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

25 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
25 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L3 ANSWER 22 OF 22 REGISTRY COPYRIGHT 2005 ACS on STN
RN **139-65-1** REGISTRY
ED Entered STN: 16 Nov 1984
CN Benzenamine, 4,4'-thiobis- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Aniline, 4,4'-thiodi- (6CI, 8CI)
OTHER NAMES:
CN 4,4'-Diaminodiphenyl sulfide
CN 4,4'-Diaminophenyl sulfide
CN 4,4'-Thiobis[aniline]
CN 4,4'-Thiodianiline
CN 4-(Aminophenylthio)phenylamine
CN BAPS
CN Bis(4-aminophenyl) sulfide
CN Di(p-aminophenyl) sulfide
CN NSC 6191
CN p,p'-Diaminodiphenyl sulfide
CN p,p-Thiodianiline
CN Thioaniline
CN Thiodi-p-phenylenediamine
FS 3D CONCORD
MF C12 H12 N2 S
CI COM
LC STN Files: ANABSTR, BEILSTEIN*, BIOSIS, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CHEMSAFE, CSCHEM, CSNB, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MSDS-OHS, NIOSHTIC, PROMT, PS, RTECS*, SPECINFO, TOXCENTER, ULIDAT, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

515 REFERENCES IN FILE CA (1907 TO DATE)
32 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
516 REFERENCES IN FILE CAPLUS (1907 TO DATE)
36 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> b wpix

FILE 'WPIX' ENTERED AT 15:21:15 ON 15 JUN 2005
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FILE LAST UPDATED: 13 JUN 2005 <20050613/UP>
MOST RECENT DERWENT UPDATE: 200537 <200537/DW>
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>>> THE CPI AND EPI MANUAL CODES HAVE BEEN REVISED FROM UPDATE 200501.
PLEASE CHECK:
http://thomsonderwent.com/support/dwpiref/reftools/classification/code-revision/
FOR DETAILS. <<<

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L4 ANSWER 1 OF 2 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-698791 [68] WPIX
DOC. NO. CPI: C2004-247137
TITLE: Oxidizing thioethers to sulfoxides/sulfones (or sulfoxides to sulfones), used to prepare biologically active compound containing sulfinyl/sulfonyl group, comprises oxidizing thioethers/sulfoxides with epsilon-phthalimidoperhexanoic acid.
DERWENT CLASS: B05 C03
INVENTOR(S): ALLEGRINI, P; CASTALDI, G; NAPOLETANO, C; RAZZETTI, G
PATENT ASSIGNEE(S): (ABBR-N) ABBREVIATED DIPHARMA SPA; (DINA-N) DINAMITE DIPHARMA SPA; (DIPH-N) DIPHARMA SPA
COUNTRY COUNT: 34
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
US 2004192929	A1	20040930	(200468)*		5	C07C317-02<--
EP 1466897	A1	20041013	(200468)	EN		C07C315-02
R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR						
CA 2461833	A1	20040928	(200470)	EN		C07C317-44

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2004192929	A1	US 2004-801608	20040317
EP 1466897	A1	EP 2004-5420	20040308
CA 2461833	A1	CA 2004-2461833	20040325

PRIORITY APPLN. INFO: IT 2003-MI617
20030328
INT. PATENT CLASSIF.:
MAIN: C07C315-02; C07C317-02; C07C317-44
SECONDARY: C07C317-14; C07D401-12
BASIC ABSTRACT:
US2004192929 A UPAB: 20041026
NOVELTY - Oxidation of thioethers to sulfoxides or sulfones; or oxidation of sulfoxides to sulfones comprises treatment of thioethers or sulfoxides with an oxidizing amount of epsilon -phthalimidoperhexanoic acid.
USE - The process is useful for the preparation of biologically active compounds containing a sulfinyl or sulfonyl group (particularly modafinil, modafinil-sulfone, sulindac, sulindac-sulfone, dapsone, omeprazole, pantoprazole, lansoprazole, timoprazole, picoprazole, rabeprazole or exomeprazole) (claimed). The sulfinyl- or sulfonyl-organic

compounds are useful as biologically active compounds or as intermediates in their preparation. The epsilon -phthalimidoperhexanoic acid is useful in the preparation of cosmetic formulations and detergents for domestic or industrial use. The process is useful in the preparation of compounds of industrial interest, in particular pharmaceuticals for human or veterinary use.

ADVANTAGE - The epsilon -phthalimidoperhexanoic acid can be easily and safely handled and used on an industrial scale without the need of particular plants or specific safety procedures. The epsilon -phthalimidoperhexanoic acid is also a stable, commercially available, solid and cheap product; and particularly epsilon -phthalimidoperhexanoic acid and its reduced by-product (epsilon -phthalimidohexanoic acid) are substantially low polluting and can be advantageously used on a large scale.

Dwg.0/0

FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: B06-D05; B10-A10; C06-D05; C10-A10

L4 ANSWER 2 OF 2 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-692590 [68] WPIX
DOC. NO. CPI: C2004-245411
TITLE: Preparation of products for oral use containing active principles sensitive to gastrointestinal environment, by homogeneous mixing of active principles with granulation excipients, and spray coating with gastroprotective polymer.
DERWENT CLASS: A96 B02 B07 C07 D13
INVENTOR(S): PREDIERI, G
PATENT ASSIGNEE(S): (ACME-N) ACME DRUGS SRL
COUNTRY COUNT: 32
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 1462097	A1	20040929	(200468)*	EN	8	A61K009-16

R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1462097	A1	EP 2004-7039	20040324

PRIORITY APPLN. INFO: **IT 2003-MI616 20030328**
INT. PATENT CLASSIF.:
MAIN: A61K009-16
SECONDARY: A61K009-50
BASIC ABSTRACT:
EP 1462097 A UPAB: 20041026
NOVELTY - Products for the oral use containing active principles sensitive to gastrointestinal environment, are prepared by homogeneous mixing of the active principles with granulation excipients, followed by dry granulation and calibration; spheronization of the granules; and spray coating with a gastroprotective polymer.

ACTIVITY - Antiulcer; Gastrointestinal-Gen.

MECHANISM OF ACTION - None given.

USE - The invention is for preparation of products, preferably enteric coated granulates, for oral use containing active principles sensitive to gastrointestinal environment. The enteric coated granulates are useful for pharmaceutical or veterinary compositions, feed premixtures (claimed), dietetics, functional foodstuffs, nutraceuticals, probiotics, and excipients for zootechnical feeding, for treatment of gastric ulcer in

men and animals.

ADVANTAGE - The invention is simpler and cheaper than the prior art. It allows to obtain enteric-coated granules, without the preparation of neutral pellets and coating-pan enrichment. It shortens the permanence time of the granulate in the coating-pan; reduces error probability in dosing the active principle and degradation of the active ingredient; can be carried out on powdery raw material, which renders unnecessary hot air drying of semifactured products; and reduces the risk of oxidation of the active principle.

Dwg.0/0

FILE SEGMENT: CPI
FIELD AVAILABILITY: AB; DCN
MANUAL CODES: CPI: A12-V01; B04-C02A1; B04-C02B2; B04-C03B; B04-C03C; B05-B02A3; B05-B02C; B06-D05; B07-A02B; B10-C04E; B12-M10B; B12-M11D; B14-E08; C04-C02A1; C04-C02B2; C04-C03B; C04-C03C; C05-B02A3; C05-B02C; C06-D05; C07-A02B; C10-C04E; C12-M10B; C12-M11D; C14-E08; D03-G

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FILE 'HOME' ENTERED AT 15:21:19 ON 15 JUN 2005

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FILE 'REGISTRY' ENTERED AT 15:38:54 ON 15 JUN 2005
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STRUCTURE FILE UPDATES:   14 JUN 2005  HIGHEST RN 852282-01-0
DICTIONARY FILE UPDATES:  14 JUN 2005  HIGHEST RN 852282-01-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

*************************************************************************
*                                                                       *
* The CA roles and document type information have been removed from     *
* the IDE default display format and the ED field has been added,       *
* effective March 20, 2005.  A new display format, IDERL, is now        *
* available and contains the CA role and document type information.     *
*                                                                       *
*************************************************************************

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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L9   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   128275-31-0  REGISTRY
ED   Entered STN:  20 Jul 1990
CN   2H-Isoindole-2-hexaneperoxoic acid, 1,3-dihydro-1,3-dioxo- (9CI)  (CA
     INDEX NAME)
OTHER NAMES:
CN   ε-(Phthalimidoperoxy)hexanoic acid
CN   6-(Phthalimidoperoxy)hexanoic acid
CN   6-Phthalimidohexaneperoxoic acid
CN   Eureco
CN   Eureco HC
CN   Eureco HCL 11
CN   Eureco HCL 17
CN   Eureco W
CN   Phthalimidoperhexanoic acid
FS   3D CONCORD
DR   249937-65-3
MF   C14 H15 N O5
CI   COM
SR   CA
LC   STN Files:   BIOSIS, CA, CAPLUS, CASREACT, CBNB, CHEMLIST, TOXCENTER,
       USPAT2, USPATFULL
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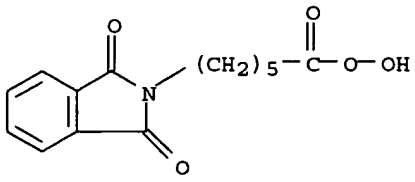

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

141 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
141 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d his full

(FILE 'HOME' ENTERED AT 15:17:58 ON 15 JUN 2005)

FILE 'HCAPLUS' ENTERED AT 15:19:27 ON 15 JUN 2005
L1 2 SEA ABB=ON PLU=ON US20040192929/PN OR IT2003-MI61#/AP,PRN

FILE 'REGISTRY' ENTERED AT 15:20:24 ON 15 JUN 2005

FILE 'HCAPLUS' ENTERED AT 15:20:26 ON 15 JUN 2005
L2 TRA L1 1- RN : 22 TERMS

FILE 'REGISTRY' ENTERED AT 15:20:26 ON 15 JUN 2005
L3 22 SEA ABB=ON PLU=ON L2

FILE 'WPIX' ENTERED AT 15:20:28 ON 15 JUN 2005
L4 2 SEA ABB=ON PLU=ON US20040192929/PN OR IT2003-MI61#/AP,PRN

FILE 'REGISTRY' ENTERED AT 15:30:37 ON 15 JUN 2005
L5 199 SEA ABB=ON PLU=ON C14H15NO5 AND NC4-C6/ES
L6 QUE ABB=ON PLU=ON (PMS OR MAN OR IDS)/CI OR UNSPECIFED OR COMPD OR COMPOUND OR (D OR T)/ELS
L7 188 SEA ABB=ON PLU=ON L5 NOT L6
L8 170 SEA ABB=ON PLU=ON L7 AND NR=2
SEL RN 69 L8
L9 1 SEA ABB=ON PLU=ON 128275-31-0/BI AND L8
L10 18 SEA ABB=ON PLU=ON L7 NOT L8

FILE 'HCAPLUS' ENTERED AT 15:43:46 ON 15 JUN 2005
L11 141 SEA ABB=ON PLU=ON L9 OR ((6 OR E) (1A) (PHTHALIMIDOPEROXY OR PHTHAL? (1A)(IMIDOPEROX? OR IMID? (1A)PEROX?) (1A) HEXANOIC) OR PHTHALIMIDOPERHEXANOIC OR PHTHAL? (1A)(PERHEXAN? OR PER?(1A)HEXAN?) OR PHTHALIMID? (1A)PERHEXAN?)(1A)ACID#
E THIOETHERS/CT
E E3+ALL
L12 QUE ABB=ON PLU=ON THIOETHERS+OLD,NT/CT
E ETHERS/CT
E E3+OLD,NT1
L13 QUE ABB=ON PLU=ON (ETHERS+OLD,NT1/CT OR ETHER#/CW)(L) THIO
E SULFOXIDES/CT
E E3+ALL
L14 QUE ABB=ON PLU=ON SULFOXIDES+NT/CT
E SULFONYL COMPOUNDS/CT
E E3+ALL
L15 QUE ABB=ON PLU=ON SULFONYL COMPOUNDS+NT/CT
L16 18564 SEA ABB=ON PLU=ON (L14 OR L15) (L)PREP+NT/RL
L17 3 SEA ABB=ON PLU=ON L11 AND L16
L18 8207 SEA ABB=ON PLU=ON L12 (L) RACT+NT/RL

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L19             2 SEA ABB=ON  PLU=ON  L11 AND L18
L20             2 SEA ABB=ON  PLU=ON  L18 AND L19
                  E SULFONES/CT
                  E E3+ALL
L21               QUE ABB=ON  PLU=ON  SULFONES+NT/CT
L22             0 SEA ABB=ON  PLU=ON  L14 AND L21 AND L11
L23             5 SEA ABB=ON  PLU=ON  L11 AND L12
L24             3 SEA ABB=ON  PLU=ON  L23 AND (L14 OR L15)
                  SAV TEM L11 NWAC2/Q
                  SAV TEM L11 NWAC2608/Q
L25             6 SEA ABB=ON  PLU=ON  L19 OR L20 OR L17 OR L23 OR L24

=> b hcap
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FILE COVERS 1907 - 15 Jun 2005  VOL 142 ISS 25
FILE LAST UPDATED: 14 Jun 2005  (20050614/ED)

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 substance identification.

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L25  ANSWER 1 OF 6  HCAPLUS  COPYRIGHT 2005 ACS on STN
AN   2005:275305  HCAPLUS
DN   142:336359
ED   Entered STN:  31 Mar 2005
TI   process for preparation of pantoprazole via reaction of a
     mercaptoimidazole with a picoline followed by oxidation and methoxylation
IN   Napoletano, Caterina; Porta, Eleonora; Allegrini, Pietro; Castaldi,
     Graziano
PA   Dipharma S.P.A., Italy
SO   Eur. Pat. Appl., 9 pp.
     CODEN: EPXXDW
DT   Patent
LA   English
IC   ICM  C07D401-12
CC   28-9 (Heterocyclic Compounds (More Than One Hetero Atom))
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    --------------------   --------
PI   EP 1518857           A1    20050330    EP 2004-21784          20040914
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR
     JP 2005097302         A2    20050414    JP 2004-266846         20040914
     US 2005096352         A1    20050505    US 2004-946112         20040922
PRAI IT 2003-MI1813       A     20030923
CLASS
 PATENT NO.      CLASS  PATENT FAMILY CLASSIFICATION CODES
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EP 1518857 ICM C07D401-12
EP 1518857 ECLA C07D401/12+235C+213
JP 2005097302 FTERM 4C063/AA01; 4C063/BB08; 4C063/CC26; 4C063/DD12; 4C063/EE01
US 2005096352 NCL 514/338.000; 546/273.700
ECLA C07D401/12+235C+213
OS CASREACT 142:336359; MARPAT 142:336359
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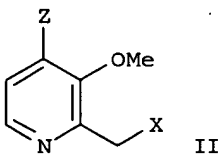
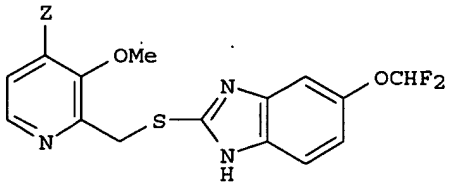


II



III

AB A process for the preparation of pantoprazole comprises reaction of 5-difluoromethoxy-2-mercaptobenzimidazole (I) with picoline derivs. (II; X, Z = leaving groups) to give pyridinylmethylthiobenzimidazole intermediates (III; Z = leaving group), oxidation thereof with ε-**phthalimidoperhexanoic acid**, and subsequent methoxylation. Thus, 2-hydroxymethyl-3-methoxy-4-chloropyridine hydrochloride in PhMe was treated dropwise with SOCl2 at 15-25° and kept for ≥1 h. The resulting residue was stirred with NaOMe and I at 15-25° to give 82.8% 5-difluoromethoxy-2-[(4-chloro-3-methoxy-2-pyridinyl)methyl]thio-1H-benzimidazole. The latter in Me2CHOH was treated with ε- **phthalimidoperhexanoic acid** in Me2CHOH followed by stirring for 5 h to give 84.4% 5-difluoromethoxy-2-[(4-chloro-3-methoxy-2-pyridinyl)methyl]sulfinyl-1H-benzimidazole. This was refluxed with NaOMe in MeOH to give 70.8% pantoprazole sodium salt sesquihydrate.

ST mercaptoimidazole picoline deriv coupling reaction; pyridinylmethylthiobenzimidazole oxidn **phthalimidoperhexanoic acid**; pantoprazole prepn

IT Oxidation
(process for preparation of pantoprazole via reaction of a mercaptoimidazole with a picoline followed by oxidation and methoxylation)

IT Aromatic hydrocarbons, uses
Hydrocarbons, uses
RL: NUU (Other use, unclassified); USES (Uses)
(process for preparation of pantoprazole via reaction of a mercaptoimidazole with a picoline followed by oxidation and methoxylation)

IT Etherification
(thioetherification; process for preparation of pantoprazole via reaction of a mercaptoimidazole with a picoline followed by oxidation and methoxylation)

IT 409098-85-7P, 2-Chloromethyl-3-methoxy-4-chloropyridine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of)

IT 368890-20-4P, 5-(Difluoromethoxy)-2-[[(4-chloro-3-methoxy-2-pyridinyl)methyl]thio]-1H-benzimidazole 409098-86-8P, 5-(Difluoromethoxy)-2-[[(4-chloro-3-methoxy-2-pyridinyl)methyl]sulfinyl]-1H-benzimidazole
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for preparation of pantoprazole via reaction of a mercaptoimidazole with a picoline followed by oxidation and methoxylation)

IT **102625-70-7P**, Pantoprazole 848676-43-7P, 5-(Difluoromethoxy)-2-[[(4-chloro-3-methoxy-2-pyridinyl)methyl]sulfinyl]-1H-benzimidazole sodium salt
RL: **IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)**

(process for preparation of pantoprazole via reaction of a mercaptoimidazole with a picoline followed by oxidation and methoxylation)

IT 67-56-1, Methanol, uses 108-88-3, Toluene, uses
RL: NUU (Other use, unclassified); USES (Uses)
(process for preparation of pantoprazole via reaction of a mercaptoimidazole with a picoline followed by oxidation and methoxylation)

IT 97963-62-7, 5-Difluoromethoxy-2-mercaptobenzimidazole 848676-41-5, 2-Hydroxymethyl-3-methoxy-4-chloropyridine hydrochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for preparation of pantoprazole via reaction of a mercaptoimidazole with a picoline followed by oxidation and methoxylation)

IT **128275-31-0**
RL: RGT (Reagent); RACT (Reactant or reagent)
(process for preparation of pantoprazole via reaction of a mercaptoimidazole with a picoline followed by oxidation and methoxylation)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

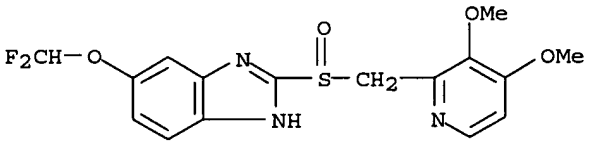
(1) Alberto, P; WO 0228852 A 2002 HCAPLUS

(2) Dipharma S P A; EP 1466897 A 2004 HCAPLUS

IT **102625-70-7P**, Pantoprazole
RL: **IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)**
(process for preparation of pantoprazole via reaction of a mercaptoimidazole with a picoline followed by oxidation and methoxylation)

RN 102625-70-7 HCAPLUS

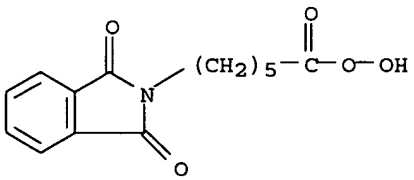
CN 1H-Benzimidazole, 5-(difluoromethoxy)-2-[[(3,4-dimethoxy-2-pyridinyl)methyl]sulfinyl]- (9CI) (CA INDEX NAME)



IT **128275-31-0**
RL: RGT (Reagent); RACT (Reactant or reagent)
(process for preparation of pantoprazole via reaction of a mercaptoimidazole with a picoline followed by oxidation and methoxylation)

RN 128275-31-0 HCAPLUS

CN 2H-Isoindole-2-hexaneperoxoic acid, 1,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)



L25 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:1059331 HCAPLUS

DN 142:22889

ED Entered STN: 10 Dec 2004

TI Method of producing an organic compound comprising at least one oxygenated functional group by oxidation with ε -(**phthalimidoperoxy)hexanoic acid**

IN Buyle, Olivier; Mathieu, Veronique; Lorent, Karol

PA Solvay et Cie., Belg.

SO PCT Int. Appl., 18 pp.

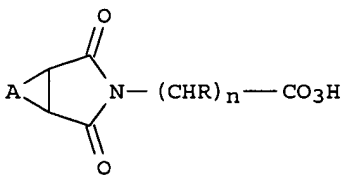
CODEN: PIXXD2
DT Patent
LA French
IC ICM C07D301-14
ICS C07D303-04; C07D303-14; C07D303-08; C07D313-04; C07C317-04
CC 21-2 (General Organic Chemistry)
Section cross-reference(s): 45
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004106313	A1	20041209	WO 2004-EP50990	20040602
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FR 2855824	A1	20041210	FR 2003-6718	20030603
PRAI FR 2003-6718	A	20030603		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004106313	ICM	C07D301-14
	ICS	C07D303-04; C07D303-14; C07D303-08; C07D313-04; C07C317-04
WO 2004106313	ECLA	C07C315/02; C07D301/14
FR 2855824	ECLA	C07C315/02; C07D301/14

OS MARPAT 142:22889
GI



I

AB The invention is directed to a method of producing an organic compound comprising at least one oxygenated functional group, by oxidation of an organic precursor comprising an oxidizable functionality with an imidoarom. percarboxylic acid I [wherein A = (un)substituted benzene, naphthalene; R = independently H, CO2H, CO3H, (un)substituted alkyl, n = 1-5]. Specifically, the invention is related to a method of oxidation of nitrogen, sulfur and phosphorous-containing compds., and epoxidn. of acyclic and cyclic olefins and ketones using ε -(**phthalimidoperoxy**)hexanoic **acid** (II). The advantages include higher selectivity and oxidation yield, and absence of side reactions. Thus, reacting allyl chloride with II at 60° for 17 h gave epichlorohydrin in 91% yield.
ST oxidn phthalimidoperoxyhexanoic acid oxidant epoxide sulfone prepn; imidoarom percarboxylic acid oxidant
IT Alkenes, reactions
Ketones, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclic and acyclic, starting materials; preparation of an organic compound comprising at least one oxygenated functional group by oxidation with an

imidoarom. percarboxylic acid, in particular ε -(phthalimidoperoxy)hexanoic acid)

IT Epoxides
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(epoxidn. products; preparation of an organic compound comprising at least one oxygenated functional group by oxidation with an imidoarom. percarboxylic acid, in particular ε -(phthalimidoperoxy)hexanoic acid)

IT Sulfones
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(oxidation products; preparation of an organic compound comprising at least one oxygenated functional group by oxidation with an imidoarom. percarboxylic acid, in particular ε -(phthalimidoperoxy)hexanoic acid)

IT Carboxylic acids, reactions
RL: RCT (Reactant); RGT (Reagent); RACT (Reactant or reagent)
(peroxy, imidoarom., oxidation reagents; preparation of an organic compound comprising at least one oxygenated functional group by oxidation with an imidoarom. percarboxylic acid, in particular ε -(phthalimidoperoxy)hexanoic acid)

IT Epoxidation
Oxidation
Oxidizing agents
(preparation of an organic compound comprising at least one oxygenated functional group by oxidation with an imidoarom. percarboxylic acid, in particular ε -(phthalimidoperoxy)hexanoic acid)

IT Organic compounds, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(sulfur-containing, oxidizable; preparation of an organic compound comprising at least one oxygenated functional group by oxidation with an imidoarom. percarboxylic acid, in particular ε -(phthalimidoperoxy)hexanoic acid)

IT 108-94-1, Cyclohexanone, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(ketone starting material; preparation of an organic compound comprising at least one oxygenated functional group by oxidation with an imidoarom. percarboxylic acid, in particular ε -(phthalimidoperoxy)hexanoic acid)

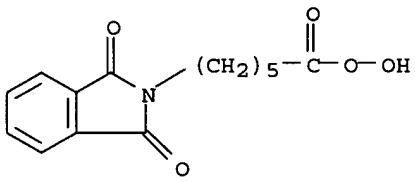
IT 107-05-1, Allyl chloride 110-83-8, Cyclohexene, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(olefin starting material; preparation of an organic compound comprising at least one oxygenated functional group by oxidation with an imidoarom. percarboxylic acid, in particular ε -(phthalimidoperoxy)hexanoic acid)

IT 128275-31-0, ε-Phthalimidoperoxyhexanoic acid
RL: RCT (Reactant); RGT (Reagent); RACT (Reactant or reagent)
(oxidation agent; preparation of an organic compound comprising at least one oxygenated functional group by oxidation with an imidoarom. percarboxylic acid, in particular ε -(phthalimidoperoxy)hexanoic acid)

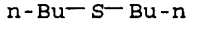
IT 106-89-8P, Epichlorohydrin, preparation 286-20-4P, Cyclohexene oxide 502-44-3P, ε-Caprolactone 598-04-9P, Dibutyl sulfone
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(oxidation product; preparation of an organic compound comprising at least one oxygenated functional group by oxidation with an imidoarom. percarboxylic acid, in particular ε -(phthalimidoperoxy)hexanoic acid)

IT 7723-14-0D, Phosphorus, oxidizable organic derivative 7727-37-9D, Nitrogen, oxidizable organic derivative 7782-49-2D, Selenium, oxidizable organic derivative
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting materials; preparation of an organic compound comprising at least one oxygenated functional group by oxidation with an imidoarom. percarboxylic acid, in particular ε -(phthalimidoperoxy

)hexanoic acid)
IT 544-40-1, Dibutyl sulfide
RL: RCT (Reactant); RACT (Reactant or reagent)
(sulfide starting material; preparation of an organic compound comprising at least one oxygenated functional group by oxidation with an imidoarom. percarboxylic acid, in particular ε -(phthalimidoperoxy)hexanoic acid)
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Ausimont Srl; EP 0325288 A 1989 HCAPLUS
(2) Carlos, D; WO 9827943 A 1998 HCAPLUS
(3) Carlucci, G; WO 0051651 A 2000 HCAPLUS
(4) Carlucci, G; WO 0065083 A 2000 HCAPLUS
(5) Contract Chemicals Limited; GB 2330358 A 1999 HCAPLUS
(6) Henkel Kgaa; DE 3906768 A 1990 HCAPLUS
(7) Lion, C; COMPTES RENDUS DE L'ACADEMIE DES SCIENCES, SERIE IIC: CHIMIE 1999, V2(1), P57 HCAPLUS
IT 128275-31-0, ε-Phthalimidoperoxyhexanoic acid
RL: RCT (Reactant); RGT (Reagent); RACT (Reactant or reagent)
(oxidation agent; preparation of an organic compound comprising at least one oxygenated functional group by oxidation with an imidoarom. percarboxylic acid, in particular ε -(phthalimidoperoxy)hexanoic acid)
RN 128275-31-0 HCAPLUS
CN 2H-Isoindole-2-hexaneperoxoic acid, 1,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)



IT 544-40-1, Dibutyl sulfide
RL: RCT (Reactant); RACT (Reactant or reagent)
(sulfide starting material; preparation of an organic compound comprising at least one oxygenated functional group by oxidation with an imidoarom. percarboxylic acid, in particular ε -(phthalimidoperoxy)hexanoic acid)
RN 544-40-1 HCAPLUS
CN Butane, 1,1'-thiobis- (9CI) (CA INDEX NAME)



L25 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:802613 HCAPLUS
DN 141:314329
ED Entered STN: 01 Oct 2004
TI A process for preparation of organic compounds containing sulfinyl or sulfonyl group via oxidation of thioethers by phthalimidoperhexanoic acid
IN Allegrini, Pietro; Napoletano, Caterina; Razzetti, Gabriele; Castaldi, Graziano
PA Dinamite Dipharma S.p.A., Italy
SO U.S. Pat. Appl. Publ., 5 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM C07C317-02

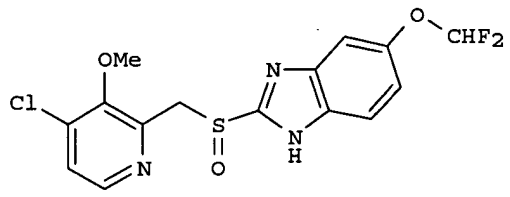
INCL 548366100; 564162000; 568027000; 568028000
CC 28-9 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 45
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004192929	A1	20040930	US 2004-801608	20040317
	EP 1466897	A1	20041013	EP 2004-5420	20040308
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
	CA 2461833	AA	20040928	CA 2004-2461833	20040325
PRAI	IT 2003-MI617	A	20030328		

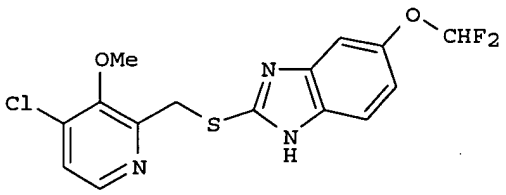
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2004192929	ICM	C07C317-02
	INCL	548366100; 564162000; 568027000; 568028000
US 2004192929	NCL	548/366.100; 564/162.000; 568/027.000; 568/028.000
	ECLA	C07C315/02; C07D401/12+235C+211
EP 1466897	ECLA	C07C315/02; C07D401/12+235C+211

OS CASREACT 141:314329
GI



I



II

AB The invention relates to a process of oxidation of thioethers to sulfoxides or sulfones. The oxidation of sulfoxides to sulfones by treatment of thioethers or sulfoxides with an oxidizing amount of **phthalimidoperhexanoic acid** is useful for the preparation of pharmaceuticals for human or veterinary use. For instance, benzimidazole derivative I was prepared via oxidation of II by **phthalimidoperhexanoic acid** with a yield of 88.8% (example 1). **Phthalimidoperhexanoic acid** is a stable, com. available, solid, and cheap oxidizing agent.

ST sulfinyl sulfonyl compd manuf prepn; thioether oxidn **phthalimidoperhexanoic acid**

IT Oxidation
(catalytic; process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by **phthalimidoperhexanoic acid**)

IT Oxidation catalysts
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by **phthalimidoperhexanoic acid**)

IT **Sulfonyl compounds**
RL: **IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)**
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by **phthalimidoperhexanoic acid**)

IT **Thioethers**
RL: **RCT (Reactant); RACT (Reactant or reagent)**
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by **phthalimidoperhexanoic acid**)

IT Functional groups
(sulfinyl group; process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by **phthalimidoperhexanoic acid**)

IT 68693-11-8P, Modafinil
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by **phthalimidoperhexanoic acid**)

IT **38194-50-2P**, Sulindac 118779-53-6P 409098-86-8P
RL: **IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)**
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by **phthalimidoperhexanoic acid**)

IT 139-65-1 23593-22-8 36187-57-2, 1-(4-Fluorophenyl)-2-(4-methylthiophenyl)ethanone 49627-27-2 63547-22-8, 2-[(Diphenylmethyl)thio]acetic acid 68524-30-1 73590-85-9 102625-64-9 117977-21-6 368890-20-4 765929-44-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by **phthalimidoperhexanoic acid**)

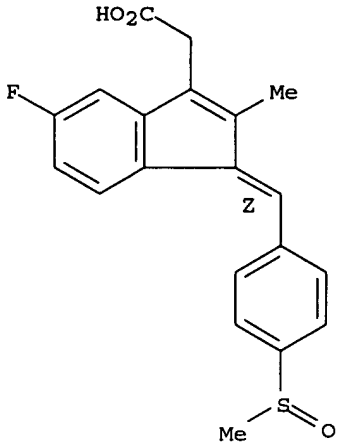
IT 36187-64-1P 63547-24-0P, 2-[(Diphenylmethyl)sulfinyl]acetic acid
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by **phthalimidoperhexanoic acid**)

IT **128275-31-0, Phthalimidoperhexanoic acid**
RL: RGT (Reagent); RACT (Reactant or reagent)
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by **phthalimidoperhexanoic acid**)

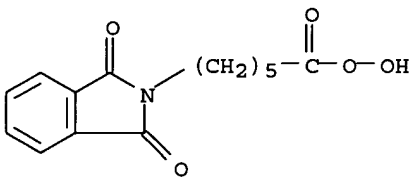
IT **38194-50-2P**, Sulindac
RL: **IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)**
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by **phthalimidoperhexanoic acid**)

RN 38194-50-2 HCAPLUS
CN 1H-Indene-3-acetic acid, 5-fluoro-2-methyl-1-[[4-(methylsulfinyl)phenyl]methylene]-, (1Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT **128275-31-0, Phthalimidoperhexanoic acid**
RL: RGT (Reagent); RACT (Reactant or reagent)
(process for preparation of organic compound containing sulfinyl or sulfonyl group via oxidation of thioethers by **phthalimidoperhexanoic acid**)
RN 128275-31-0 HCAPLUS
CN 2H-Isoindole-2-hexaneperoxoic acid, 1,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)



L25 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:726141 HCAPLUS
DN 136:90120
ED Entered STN: 05 Oct 2001
TI New ω-phthalimidoperoxyalkanoic acids in decontamination. Destruction of some toxic organophosphorus and organosulfur pollutants
AU Lion, Claude; Da Conceicao, Louis; Delmas, Gerard; Magnaud, Gilbert
CS Institut de Topologie et de Dynamique des Systemes, Universite de Paris 7, Paris, 75005, Fr.
SO New Journal of Chemistry (2001), 25(9), 1182-1184
CODEN: NJCHE5; ISSN: 1144-0546
PB Royal Society of Chemistry
DT Journal
LA English
CC 60-2 (Waste Treatment and Disposal)
Section cross-reference(s): 5, 50
AB Chemical decontamination of toxic compds. (chemical warfare agents and/or insecticides) is of increasing importance. We report the use of ω-phthalimidoperoxyalkanoic acids in the destruction of paraoxon (di-Et p-nitrophenyl phosphate), a well-known insecticide, and 2-chloro-2'-phenyldiethyl sulfide (a half mustard). We show that while all the peroxy acids used in this series allow the destruction of toxic compds., the length n of the alkanoic side chain is important to the choice of the optimal industrial compound, which is 6-phthalimidoperoxyhexanoic acid (n = 5).
ST phthalimidoperoxyalkanoic acid destruction toxic organophosphorus

organosulfur pollutant; insecticide organophosphorus organosulfur destruction phthalimidoperoxyalkanoic acid

IT Wastewater treatment
(decomposition; phthalimidoperoxyalkanoic acids in decontamination and destruction of toxic organophosphorus and organosulfur pollutants)

IT Chemical warfare agents
Insecticides
(phthalimidoperoxyalkanoic acids in decontamination and destruction of toxic organophosphorus and organosulfur pollutants)

IT Wastes
(toxic; phthalimidoperoxyalkanoic acids in decontamination and destruction of toxic organophosphorus and organosulfur pollutants)

IT 5797-07-9 124931-51-7, 2H-Isoindole-2-butaneperoxoic acid, 1,3-dihydro-1,3-dioxo- **128275-31-0**, 6-Phthalimidoperoxyhexanoic acid 179639-14-6 386210-37-3 386210-38-4
RL: NUU (Other use, unclassified); USES (Uses)
(phthalimidoperoxyalkanoic acids in decontamination and destruction of toxic organophosphorus and organosulfur pollutants)

IT **139-66-2**, Diphenyl sulfide 311-45-5, Paraoxon **544-40-1**, Dibutyl sulfide 99188-19-9
RL: REM (Removal or disposal); PROC (Process)
(phthalimidoperoxyalkanoic acids in decontamination and destruction of toxic organophosphorus and organosulfur pollutants)

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD

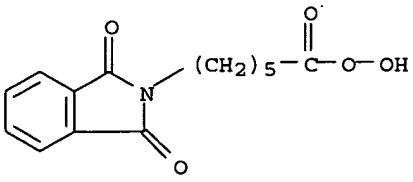
RE

(1) Brown, H; J Am Chem Soc 1970, V92, P6660 HCAPLUS
(2) Delmas, G; FR 2276368 1991 HCAPLUS
(3) Feldhues, M; Tetrahedron 1985, V41, P4195 HCAPLUS
(4) Gethoffer, H; DE 4003309 1991 HCAPLUS
(5) Gethoffer, H; US 5061807 1991 HCAPLUS
(6) Gonzaga, F; New J Chem 2001, V25, P151 HCAPLUS
(7) Hauptmann, S; J Prakt Chem 1966, V34, P262 HCAPLUS
(8) Julia, S; J Chem Soc, Chem Commun 1978, P742 HCAPLUS
(9) Leblanc, A; FR 9203627 1992
(10) Leblanc, A; Phosphorus, Sulfur Silicon Relat Elem 1993, V79, P141 HCAPLUS
(11) Lion, C; FR 8911133 1989
(12) Lion, C; FR 9603204 1996
(13) Lion, C; US 6143088 2000 HCAPLUS
(14) Lion, C; Bull Soc Chim Belg 1990, V99, P127 HCAPLUS
(15) Lion, C; Bull Soc Chim Belg 1991, V100, P555 HCAPLUS
(16) Lion, C; Bull Soc Chim Belg 1992, V101, P249 HCAPLUS
(17) Lion, C; Bull Soc Chim Belg 1997, V106, P221 HCAPLUS
(18) Lion, C; C R Acad Sci, Ser IIc 1999, V2, P57 HCAPLUS
(19) Lion, C; Phosphorus, Sulfur Silicon Relat Elem 1991, V56, P213 HCAPLUS

IT **128275-31-0**, 6-Phthalimidoperoxyhexanoic acid
RL: NUU (Other use, unclassified); USES (Uses)
(phthalimidoperoxyalkanoic acids in decontamination and destruction of toxic organophosphorus and organosulfur pollutants)

RN 128275-31-0 HCAPLUS

CN 2H-Isoindole-2-hexaneperoxoic acid, 1,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)



IT **139-66-2**, Diphenyl sulfide **544-40-1**, Dibutyl sulfide
RL: REM (Removal or disposal); PROC (Process)
(phthalimidoperoxyalkanoic acids in decontamination and destruction of toxic organophosphorus and organosulfur pollutants)

RN 139-66-2 HCAPLUS
CN Benzene, 1,1'-thiobis- (9CI) (CA INDEX NAME)

Ph—S—Ph

RN 544-40-1 HCAPLUS
CN Butane, 1,1'-thiobis- (9CI) (CA INDEX NAME)

n-Bu—S—Bu-n

L25 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:578597 HCAPLUS
DN 135:124156
ED Entered STN: 10 Aug 2001
TI Bactericide combinations in detergents
IN Elsmore, Richard; Houghton, Mark Phillip
PA Robert McBride Ltd., UK
SO Brit. UK Pat. Appl., 53 pp.
CODEN: BAXXDU
DT Patent
LA English
IC ICM C11D003-48
CC 46-6 (Surface Active Agents and Detergents)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI GB 2354771	A1	20010404	GB 1999-23253	19991001
PRAI GB 1999-23253		19991001		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
GB 2354771	ICM	C11D003-48
GB 2354771	ECLA	C11D003/00B13; C11D003/386

AB The detergent comprises a bactericide in combination with an anionic, cationic, nonionic or amphoteric surfactant which has a C12-18 alkyl group as the longest chain attached to the hydrophilic moiety. Creduret 50 (hydrogenated ethoxylated castor oil) 50, citric acid 12, formalin 10, sodium alkyl benzene sulfonate (C12-20) alkyl 1, perfume white line 0.5, detergent enzyme savingase 0.2, and bactericide Pr 4-hydroxybenzoate 1.0 parts formed a detergent, showing reduction activity after contact 2.
ST bactericide surfactant detergent
IT Balsams
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(Canada; bactericide combinations in detergents)
IT Amine oxides
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(C10-16-alkyldimethyl; bactericide combinations in detergents)
IT Quaternary ammonium compounds, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(C12-14-alkyltrimethyl, chlorides; bactericide combinations in detergents)
IT Amines, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(C12-18-alkyl; bactericide combinations in detergents)
IT Amines, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)

(C14-18-alkyl; bactericide combinations in detergents)
IT Alcohols, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(C16-18, ethoxylated; bactericide combinations in detergents)
IT Fatty acids, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(C16-18, phentachlorophenyl esters; bactericide combinations in detergents)
IT Amines, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(C16-18-unsatd. alkyl; bactericide combinations in detergents)
IT Amines, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(C8-10-alkyl; bactericide combinations in detergents)
IT Fatty acids, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(C8-10; bactericide combinations in detergents)
IT Amines, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(C8-18-alkyl; bactericide combinations in detergents)
IT Amines, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(N-C10-18-alkyltrimethylenediamines, reaction products with chloroacetic acid; bactericide combinations in detergents)
IT Amines, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(N-coco alkyltrimethylenediamines; bactericide combinations in detergents)
IT Amines, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(N-tallow alkyltrimethylenediamines, ethoxylated; bactericide combinations in detergents)
IT Amines, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(N-tallow alkyltrimethylenediamines; bactericide combinations in detergents)
IT Balsams
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(Peru; bactericide combinations in detergents)
IT Resins
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(Siam gum benzoin; bactericide combinations in detergents)
IT Anthracene oil
(acid extract for bactericide combinations in detergents)
IT Pimenta
(acris; extract for bactericide combinations in detergents)
IT Carboxylic acids, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(aliphatic, salts; bactericide combinations in detergents)
IT Quaternary ammonium compounds, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(alkylbenzyldimethyl, chlorides; bactericide combinations in

detergents)
IT Surfactants
(amphoteric; bactericide combinations in detergents)
IT Surfactants
(anionic; bactericide combinations in detergents)
IT Antibacterial agents
Creosote
(bactericide combinations in detergents)
IT Asphalt
Coconut oil
Creosote oil
Epoxy resins, uses
Hydrocarbon oils
Paraffin oils
Pyrethrins
Tar acids
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(bactericide combinations in detergents)
IT Quaternary ammonium compounds, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(benzyl-C12-14-alkyldimethyl, chlorides; bactericide combinations in detergents)
IT Quaternary ammonium compounds, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(benzyl-C12-16-alkyldimethyl, chlorides; bactericide combinations in detergents)
IT Quaternary ammonium compounds, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(benzyl-C12-18-alkyldimethyl, chlorides; bactericide combinations in detergents)
IT Quaternary ammonium compounds, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(benzyl-C12-18-alkyldimethyl, salts with 1,2-benzisothiazol-3(2H)-one 1,1-dioxide (1:1); bactericide combinations in detergents)
IT Quaternary ammonium compounds, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(benzyl-C16-18-alkyldimethyl, chlorides; bactericide combinations in detergents)
IT Almond (Prunus amygdalus)
(bitter; extract for bactericide combinations in detergents)
IT Essential oils
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(cade; bactericide combinations in detergents)
IT Essential oils
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(cassia; bactericide combinations in detergents)
IT Secretions (external)
(castoreum; bactericide combinations in detergents)
IT Surfactants
(cationic; bactericide combinations in detergents)
IT Essential oils
RL: MOA (Modifier or additive use); USES (Uses)
(cedar; for bactericide combinations in detergents)
IT Essential oils
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(clove; bactericide combinations in detergents)
IT Amines, uses

RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(coco alkyl, acetates; bactericide combinations in detergents)
IT Amines, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(coco alkyl; bactericide combinations in detergents)
IT Amines, uses
Betaines
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(coco alkyldimethyl; bactericide combinations in detergents)
IT Quaternary ammonium compounds, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(coco alkyltrimethyl, chlorides; bactericide combinations in detergents)
IT Fatty acids, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(coco, reaction products with aminoethylaminoethanol, quaternized; bactericide combinations in detergents)
IT Amine oxides
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(cocoalkyldimethyl; bactericide combinations in detergents)
IT Balsams
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(copaiba; bactericide combinations in detergents)
IT Naphthenic acids, uses
Resin acids
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(copper salts; bactericide combinations in detergents)
IT Essential oils
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(cypress; bactericide combinations in detergents)
IT Polysulfides
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(di-tert-nonyl; bactericide combinations in detergents)
IT Quaternary ammonium compounds, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(dialkyldimethyl, chlorides; bactericide combinations in detergents)
IT Quaternary ammonium compounds, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(dicoco alkyldimethyl, chlorides; bactericide combinations in detergents)
IT Amines, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(dimethyltallow alkyl; bactericide combinations in detergents)
IT Coal tar
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(distillate; bactericide combinations in detergents)
IT Essential oils
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(eucalyptus; bactericide combinations in detergents)
IT Abelmoschus moschatus
Allspice (Pimenta dioica)

Amyris balsamifera
Angelica archangelica
Aniba rosaeodora
Anise
Artemisia
Artemisia maritima
Camphor tree (Cinnamomum camphora)
Capsicum frutescens
Caraway (Carum carvi)
Chrysanthemum cinerariaefolium
Cinnamomum zeylanicum
Cistus ladanifer
Citrus medica
Coriander
Cumin
Cymbopogon citratus
Cymbopogon nardus
Cymbopogon winterianus
Dill
Dipteryx odorata
Evernia furfuracea
Evernia prunastri
Fennel (Foeniculum vulgare)
Fennel (Foeniculum vulgare vulgare)
Fir (Abies balsamea)
Gaultheria procumbens
Ginger
Grapefruit
Guaiacum officinale
Hay
Hedeoma pulegioides
Helichrysum stoechas
Iris pseudacorus
Jasmine (Jasminum grandiflorum)
Juniper (Juniperus communis)
Juniper (Juniperus mexicana)
Juniper (Juniperus virginiana)
Laurus nobilis
Lavender (Lavandula hybrida)
Lavender (Lavandula spica)
Lime (Citrus aurantifolia)
Mandarin orange
Melaleuca alternifolia
Mentha arvensis piperascens
Musks
Myristica fragrans
Narcissus juncifolius
Parsley (Petroselinum crispum)
Patchouli
Peppermint (Mentha piperita)
Pimenta racemosa
Pine (Pinus)
Pine (Pinus pumila)
Pine (Pinus sylvestris)
Propolis
Rose (Rosa damascena)
Rosemary
Sage (Salvia sclarea)
Sandalwood (Santalum album)
Spanish marjoram
Spartium junceum
Spearmint (Mentha spicata)
St.-John's-wort (Hypericum perforatum)
Star anise (Illicium verum)
Thyme (Thymus capitatus)
Vaccinium myrtillus

Valerian (Valeriana)
Vetiveria zizanioides
Viola odorata
Wheat
Ylang-ylang (Cananga odorata)
(extract for bactericide combinations in detergents)

IT Bergamot (Citrus bergamia)
Birch (Betula lenta)
Birch (Betula pendula)
Ocimum basilicum
Savory (Satureja hortensis)
(extract; bactericide combinations in detergents)

IT Essential oils
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(geranium; bactericide combinations in detergents)

IT Amines, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(hydrogenated tallow alkyl, acetates; bactericide combinations in detergents)

IT Resin acids
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(hydrogenated, Me esters; bactericide combinations in detergents)

IT Collagens, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(hydrolyzates, [3-(dodecyldimethylammonio)-2-hydroxypropyl], chlorides; bactericide combinations in detergents)

IT Naphthenic acids, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(iron salts; bactericide combinations in detergents)

IT Essential oils
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(lavender; bactericide combinations in detergents)

IT Essential oils
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(lemon, extraction residues; bactericide combinations in detergents)

IT Detergents
(liquid; bactericide combinations in detergents)

IT Fats and Glyceridic oils, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(margosa; bactericide combinations in detergents)

IT Essential oils
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(mint, Mentha; bactericide combinations in detergents)

IT Perfumes
(myrrh; extract for bactericide combinations in detergents)

IT Surfactants
(nonionic; bactericide combinations in detergents)

IT Resins
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(olibanum; bactericide combinations in detergents)

IT Resins
(opopanax; bactericide combinations in detergents)

IT Essential oils
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(peppermint; bactericide combinations in detergents)

IT Essential oils
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(pine; bactericide combinations in detergents)
IT Fatty acids, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(potassium salts; bactericide combinations in detergents)
IT Protein hydrolyzates
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(reaction products with undecenoyl chloride, salts; bactericide combinations in detergents)
IT Pelargonium graveolens
(saponified extract for bactericide combinations in detergents)
IT Orange
(sour; extract for bactericide combinations in detergents)
IT Balsams
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(storax; bactericide combinations in detergents)
IT Orange
(sweet, Valencia; extract for bactericide combinations in detergents)
IT Almond (Prunus amygdalus)
Orange
(sweet; extract for bactericide combinations in detergents)
IT Amines, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(tallow alkyl, ethoxylated, reaction products with chloroacetic acid; extract for bactericide combinations in detergents)
IT Amines, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(tallow alkyl; bactericide combinations in detergents)
IT Fatty acids, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(tallow, reaction products with triethanolamine, quaternized; bactericide combinations in detergents)
IT Essential oils
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(thyme, Thymus vulgaris; bactericide combinations in detergents)
IT Balsams
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(tolu; bactericide combinations in detergents)
IT Balsams
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(tonka bean; bactericide combinations in detergents)
IT Amines, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(unsatd., C18; bactericide combinations in detergents)
IT Naphthenic acids, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(zinc salts; bactericide combinations in detergents)
IT 58999-88-5D, 1-Propanaminium, 3-amino-N,N,N-trimethyl-, derivs.
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(N-C12-18 acyl derivs., Me sulfates; bactericide combinations in detergents)
IT 50-00-0, Formaldehyde, uses 50-00-0D, Formaldehyde, reaction products,

uses 50-14-6 50-21-5, uses 50-65-7 50-99-7, D-Glucose, uses
51-03-6 51-28-5, uses 52-51-7 52-68-6 54-21-7 54-64-8 55-38-9
55-56-1 55-86-7 56-35-9 56-36-0 56-37-1 56-38-2 56-95-1
57-09-0 57-10-3, Hexadecanoic acid, uses 57-15-8 57-24-9,
Strychnidin-10-one 57-55-6D, Propylene glycol, reaction products with
formaldehyde 58-36-6 58-89-9 59-50-7 59-87-0 60-12-8,
Benzeneethanol 60-51-5 61-73-4 62-38-4 62-56-6, Thiourea, uses
62-73-7 63-25-2 64-18-6, Formic acid, uses 64-18-6D, Formic acid,
reaction products 64-19-7D, Acetic acid, derivs., uses 64-69-7
67-20-9 67-63-0D, 2-Propanol, reaction products with boron trifluoride
and 5-ethylidenebicyclo[2.2.1]hept-2-ene, uses 67-66-3, uses
67-68-5, uses 67-97-0 69-72-7, uses 70-55-3
71-23-8, 1-Propanol, uses 71-41-0, 1-Pentanol, uses 72-43-5 72-56-0
74-83-9, uses 75-12-7D, Formamide, reaction products with formaldehyde,
uses 75-21-8, Oxirane, uses 75-31-0, 2-Propanamine, uses 75-91-2
76-06-2 76-22-2 76-39-1 76-87-9 77-42-9 77-48-5 77-49-6
77-78-1D, Dimethyl sulfate, quaternized with 9-octadecenoic
acid/triethanolamine reaction products 77-78-1D, Dimethyl sulfate,
quaternized with fatty acid/triethanolamine reaction products 77-92-9,
uses 78-59-1 78-69-3 78-70-6 78-79-5D, Isoprene, reaction products
with acetic acid 78-83-1, uses 78-92-2, 2-Butanol 79-07-2 79-08-3
79-11-8, uses 79-11-8D, Chloroacetic acid, reaction products with
N-C10-16-alkyltrimethylenediamines 79-11-8D, Acetic acid, chloro-,
reaction products with diethylenetriamine N-mono- and di-C8-18-alkyl
derivs., uses 79-14-1, uses 79-20-9 79-21-0, Ethaneperoxoic acid
79-69-6 79-92-5D, 2,2-Dimethyl-3-methylenebicyclo[2.2.1]heptane,
reaction products with 2-methoxyphenol, hydrogenated 80-26-2 80-27-3
80-46-6 80-71-7 81-07-2D, 1,2-Benzisothiazol-3(2H)-one 1,1-dioxide,
salts with quaternary ammonium compds., benzyl-C12-18-alkyldimethyl (1:1)
81-14-1 81-15-2 81-81-2 81-82-3 82-66-6 83-34-1 83-79-4
84-65-1, 9,10-Anthracenedione 84-66-2 84-74-2 85-91-6 87-10-5
87-17-2 87-20-7 87-22-9 87-90-1 88-04-0 88-06-2 88-14-2,
2-Furancarboxylic acid 88-84-6 89-68-9 89-78-1 89-79-2 89-83-8
90-05-1D, Phenol, 2-methoxy-, reaction products with 2,2-dimethyl-3-
methylenebicyclo[2.2.1]heptane, hydrogenated 90-13-1 90-17-5
90-43-7, [1,1'-Biphenyl]-2-ol 90-43-7D, [1,1'-Biphenyl]-2-ol,
chlorinated 90-87-9 91-20-3, Naphthalene, uses 91-61-2 91-64-5,
2H-1-Benzopyran-2-one 93-15-2 93-16-3 93-51-6 93-59-4,
Benzenecarboperoxoic acid 93-65-2 93-69-6 93-89-0 94-13-3
94-18-8 94-26-8 94-36-0, uses 94-96-2 95-14-7, 1H-Benzotriazole
95-41-0 95-48-7, uses 96-24-2 96-29-7 97-23-4 97-24-5 97-54-1
97-77-8 98-01-1, 2-Furancarboxaldehyde, uses 98-11-3D,
Benzenesulfonic acid, mono-C10-14-alkyl derivs., compds. with Me
1H-benzimidazol-2-ylcarbamate, uses 98-53-3 98-55-5 99-49-0
99-76-3 99-86-5 100-37-8 100-44-7, uses 100-51-6, Benzenemethanol,
uses 100-52-7, Benzaldehyde, uses 100-73-2 100-86-7 100-89-0
100-97-0, uses 101-20-2 101-21-3 101-39-3 101-53-1 101-84-8
101-85-9 102-17-0 102-20-5 102-30-7 102-71-6D, copper complexes
102-71-6D, Triethanolamine, reaction products with 9-octadecenoic acid,
di-Me sulfate-quaternized 102-98-7 103-05-9 103-26-4 103-52-6
103-82-2, Benzeneacetic acid, uses 103-95-7 104-09-6 104-21-2
104-29-0 104-53-0, Benzenepropanal 104-54-1 104-55-2 104-60-9
104-61-0 104-62-1 104-67-6 104-76-7 104-78-9 104-87-0 105-01-1
105-66-8 105-85-1 105-87-3 105-90-8 106-22-9 106-24-1 106-25-2
106-30-9 106-44-5, uses 106-46-7 106-70-7 106-72-9 106-73-0
106-79-6 106-88-7 106-89-8, uses 107-02-8, 2-Propenal, uses
107-21-1D, Ethylene glycol, reaction products with formaldehyde
107-22-2, Ethanedial 107-41-5 107-43-7 107-75-5 107-95-9D,
β-Alanine, N-coco alkyl derivs. 108-16-7 108-39-4, uses
108-64-5 108-80-5, 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione 108-88-3,
uses 108-89-4 108-94-1, Cyclohexanone, uses 108-95-2, Phenol, uses
108-95-2D, Phenol, polypropene derivs., uses 108-99-6 109-21-7
109-89-7, uses 110-05-4 110-15-6, Butanedioic acid, uses 110-27-0
110-38-3 110-41-8 110-44-1 110-58-7, 1-Pentanamine 110-62-3,
Pentanal 110-75-8 110-86-1, Pyridine, uses 110-89-4, Piperidine,
uses 111-11-5 111-27-3, 1-Hexanol, uses 111-30-8, Pentanedial

RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(bactericide combinations in detergents)

IT 111-40-0D, 1,2-Ethanediamine, N-(2-aminoethyl)-, reaction products with 1-chlorooctane 111-40-0D, Diethylenetriamine, reaction products with chloroacetic acid, N-mono- and di-C8-18-alkyl derivs. 111-41-1D, 2-(2-Aminoethyl)aminoethanol, reaction with coco fatty acids, quaternized 111-42-2, uses 111-46-6D, Diethylene glycol, reaction products with formaldehyde 111-61-5 111-81-9 111-82-0 111-85-3D, 1-Chlorooctane, reaction products with acetic acid and diethylenetriamine 111-85-3D, 1-Chlorooctane, reaction products with N-(2-aminoethyl)-1,2-ethanediamine 111-92-2 112-00-5 112-02-7 112-18-5 112-34-5D, 2-(2-Butoxyethoxy)ethanol, reaction products with formaldehyde 112-38-9, 10-Undecenoic acid 112-39-0 112-43-6, 10-Undecen-1-ol 112-45-8, 10-Undecenal 112-53-8, 1-Dodecanol 112-54-9, Dodecanal 112-59-4 112-61-8 112-69-6 112-72-1, 1-Tetradecanol 112-75-4 112-80-1D, 9-Octadecenoic acid (9Z)-, reaction products with triethanolamine, di-Me sulfate-quaternized, uses 112-90-3 113-48-4 114-26-1 114-63-6 115-29-7 115-31-1 115-32-2 115-71-9 116-25-6 117-18-0 117-52-2 118-52-5 118-55-8 118-58-1 118-71-8 118-79-6 119-36-8 119-61-9, uses 120-32-1 120-47-8 120-50-3 120-51-4 120-57-0, 1,3-Benzodioxole-5-carboxaldehyde 120-72-9, 1H-Indole, uses 121-32-4 121-33-5 121-44-8, uses 121-54-0 121-65-3 121-75-5 122-07-6 122-14-5 122-18-9 122-19-0 122-34-9 122-40-7 122-42-9 122-48-5 122-67-8 122-69-0 122-70-3 122-78-1, Benzeneacetaldehyde 122-97-4, Benzenepropanol 122-99-6 123-05-7 123-11-5, uses 123-29-5 123-30-8 123-32-0 123-66-0 124-04-9, Hexanedioic acid, uses 124-07-2, Octanoic acid, uses 124-09-4, 1,6-Hexanediamine, uses 124-13-0, Octanal 124-19-6, Nonanal 124-22-1, 1-Dodecanamine 124-43-6 124-65-2 124-76-5 126-06-7 126-11-4 126-15-8 126-91-0 127-41-3 127-43-5 127-51-5 **127-65-1** 127-90-2 127-91-3 128-03-0 128-04-1 128-08-5 128-09-6 129-06-6 131-11-3 131-52-2 132-27-4 133-06-2 133-07-3 133-53-9 134-20-3 134-28-1 134-62-3 135-79-5 136-45-8 136-53-8 136-77-6 136-85-6 137-16-6 137-26-8 137-30-4 137-40-6 137-41-7 137-42-8 138-93-2 139-07-1 139-08-2 140-10-3, uses 140-11-4 140-39-6 140-72-7 140-95-4 141-94-6 142-18-7 142-59-6 142-62-1, Hexanoic acid, uses 142-71-2 143-07-7, Dodecanoic acid, uses 143-08-8, 1-Nonanol 143-14-6, 9-Undecenal 143-50-0 144-55-8, Carbonic acid monosodium salt, uses 144-62-7, Ethanedioic acid, uses 147-71-7 148-24-3, 8-Quinolinol, uses 148-79-8 149-30-4, 2(3H)-Benzothiazolethione 149-57-5 150-78-7 150-84-5 151-01-9 151-21-3, uses 156-62-7 298-12-4 299-84-3 300-76-5 302-01-2, Hydrazine, uses 330-54-1 333-41-5 334-48-5, Decanoic acid 359-37-5 379-52-2 404-86-4 470-43-9 470-82-6 473-34-7 475-20-7D, reaction products with formic acid and boron trifluoride 488-10-8 489-86-1 498-81-7 499-83-2, 2,6-Pyridinedicarboxylic acid 502-61-4 504-24-5, 4-Pyridinamine 507-60-8 507-70-0 514-51-2 515-00-4 515-69-5 520-45-6 527-07-1 532-32-1 533-74-4 534-18-9 535-89-7 536-59-4 536-60-7 538-71-6 539-82-2 539-90-2 541-91-3 544-63-8, Tetradecanoic acid, uses 551-92-8 556-61-6 557-08-4 576-55-6 **577-11-7** 582-25-2 584-79-2 589-38-8, 3-Hexanone 589-66-2 591-12-8 597-09-1 615-62-3 620-23-5 621-82-9, uses 624-15-7 625-51-4 626-82-4 628-63-7 638-37-9, Butanedial 639-58-7 643-79-8, 1,2-Benzenedicarboxaldehyde 646-06-0, 1,3-Dioxolane 659-40-5 683-10-3 688-73-3D, Stannane, tributyl-, mono(naphthenoyloxy) derivs. 692-86-4 695-10-3D, 1H-Imidazole-1-ethanol, 4,5-dihydro-, 2-nortall-oil alkyl derivs. 696-59-3 699-02-5 705-86-2 706-14-9 719-96-0 731-27-1 762-26-5 770-35-4 789-02-6 821-55-6, 2-Nonanone 825-51-4 828-00-2 870-72-4 886-50-0 900-95-8 925-78-0, 3-Nonanone 929-73-7 959-55-7 971-66-4 991-42-4 996-35-0
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(bactericide combinations in detergents)

IT 1000-82-4 1066-30-4 1067-97-6 1085-12-7 **1085-98-9** 1111-67-7 1119-94-4 1119-97-7 1120-24-7 1120-48-5 1121-30-8

1121-31-9 1123-85-9 1135-66-6 1192-52-5 1205-17-0 1209-61-6
1222-05-5 1300-71-6 1303-28-2, Arsenic oxide (As2O5) 1303-86-2,
Boron oxide (B2O3), uses 1303-96-4D, Borax (B4Na2O7.10H2O), reaction
products with sulfuric acid 1305-78-8, Calcium oxide, uses 1309-48-4,
Magnesium oxide (MgO), uses 1310-58-3, Potassium hydroxide (K(OH)), uses
1310-73-2, Sodium hydroxide (Na(OH)), uses 1314-13-2, Zinc oxide (ZnO),
uses 1314-84-7, Zinc phosphide (Zn3P2) 1317-38-0, Copper oxide (CuO),
uses 1317-39-1, Copper oxide (Cu2O), uses 1319-77-3 1320-44-1
1322-14-1 1323-00-8 1327-53-3, Arsenic oxide (As2O3) 1330-43-4,
Boron sodium oxide (B4Na2O7) 1331-83-5 1332-07-6 1332-65-6, Copper
chloride hydroxide (Cu2Cl(OH)3) 1333-53-5 1333-58-0 1333-82-0,
Chromium oxide (CrO3) 1333-83-1, Sodium fluoride (Na(HF2)) 1334-78-7
1335-10-0 1335-12-2 1335-46-2 1341-49-7, Ammonium fluoride
((NH4)(HF2)) 1405-92-1 1414-45-5, Nisin A 1438-94-4 1446-61-3
1490-04-6 1634-02-2 1643-20-5 1696-17-9 1715-30-6 1777-82-8
1854-23-5 1854-26-8 1875-89-4 1885-38-7 1892-43-9 1897-45-6
1983-10-4 2016-56-0 2019-69-4 **2032-65-7** 2050-08-0
2090-05-3 2104-96-3 2120-70-9 2155-70-6 2216-51-5 2224-44-4
2244-16-8 2244-21-5 2275-23-2 2279-96-1, Butanediperoxoic acid
2305-25-1 2310-17-0 2372-82-9 2374-05-2 2390-68-3 2436-90-0
2439-10-3 2445-76-3 2463-53-8, 2-Nonenal 2491-38-5 2492-26-4
2500-83-6 2527-57-3 2527-58-4 2565-36-8 2571-88-2 2631-40-5
2634-33-5, 1,2-Benzisothiazol-3(2H)-one 2639-63-6 2682-20-4
2756-56-1 2782-57-2 2832-19-1 2871-78-5 2875-41-4D, Glycine,
N-(3-aminopropyl)-, N'-C10-16-alkyl derivs., hydrochlorides 2893-78-9
2921-88-2 3006-10-8 3033-23-6 3064-70-8 3090-35-5 3142-72-1
3228-02-2 3302-10-1 3313-92-6 3332-27-2 3380-34-5
3383-96-8 3398-33-2 3547-33-9 3586-55-8 3691-35-8
3696-28-4 3697-42-5 3710-84-7 3766-81-2 3784-03-0 3785-34-0
3811-68-5 3811-73-2 3811-75-4 3851-97-6 3926-62-3D, Acetic acid,
chloro-, sodium salt, reaction products with 4,5-dihydro-1H-imidazole-1-
ethanol 2-norcoco alkyl derivs. and sodium hydroxide 3926-62-3D, Sodium
chloroacetate, reaction products with B-C12-18 alkylmethylenediamines
3984-22-3 4075-81-4 4080-31-3 4151-50-2 4169-04-4 4180-23-8
4182-44-9 4191-73-5 4247-02-3 4299-07-4 4299-60-9 4317-72-0
4317-79-7 4342-36-3 4454-05-1D, reaction products with ethanol
4525-33-1 4574-04-3 4602-84-0 4707-47-5 4719-04-4 4724-48-5
4824-78-6 4940-11-8 5026-62-0 5039-78-1 5153-25-3 5197-80-8
5329-14-6, Sulfamic acid 5332-73-0 5392-40-5 5395-50-6
5437-45-6 5454-19-3 5462-06-6 5471-51-2 5538-94-3 5538-95-4
5598-13-0 5625-90-1 5725-96-2 5836-29-3 5915-41-3 5972-76-9
6001-64-5 6011-99-0 6051-03-2 6152-33-6 6317-18-6 6324-78-3
6378-65-0 6413-26-9 6440-58-0 6485-40-1 6542-37-6 6582-31-6
6834-92-0 6843-97-6 6915-15-7 6939-35-1 6988-21-2 7080-50-4
7166-19-0 7173-51-5 7173-62-8 7281-04-1 **7287-19-6**
7320-34-5 7378-99-6 7440-22-4, Silver, uses 7440-50-8, Copper, uses
7446-20-0, Zinc sulfate heptahydrate 7491-20-5 7491-21-6 7492-67-3
7540-51-4 7549-37-3 7553-56-2, Iodine, uses 7601-54-9D, Trisodium
phosphate, chlorinated 7631-89-2 7631-90-5 7632-04-4 7637-07-2D,
Boron trifluoride, reaction products with 2-propanol and
5-ethylidenebicyclo[2.2.1]hept-2-ene 7640-33-7 7646-85-7, Zinc
chloride (ZnCl2), uses 7647-01-0, Hydrochloric acid, uses 7647-15-6,
Sodium bromide (NaBr), uses 7664-38-2, Phosphoric acid, uses
7664-41-7, Ammonia, uses 7664-93-9, Sulfuric acid, uses 7681-49-4,
Sodium fluoride (NaF), uses 7681-52-9 7681-55-2 7681-57-4
7681-93-8 7696-12-0 7697-37-2, Nitric acid, uses 7699-45-8, Zinc
bromide (ZnBr2) 7704-34-9, Sulfur, uses 7722-64-7 7722-84-1,
Hydrogen peroxide (H2O2), uses 7722-86-3, Peroxymonosulfuric acid
7726-95-6, Bromine, uses 7727-21-1
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(bactericide combinations in detergents)

IT 7733-02-0 7747-35-5 7757-81-5 7757-83-7 7758-02-3, Potassium
bromide (KBr), uses 7758-19-2 7758-89-6, Copper chloride (CuCl)
7758-98-7, Sulfuric acid copper(2+) salt (1:1), uses 7758-99-8
7775-09-9 7775-27-1 7778-39-4, Arsenic acid (H3AsO4) 7778-43-0

7778-50-9 7778-54-3 7778-66-7 7779-27-3 7779-73-9 7779-78-4
7779-81-9 7782-44-7, Oxygen, uses 7782-50-5, Chlorine, uses
7783-20-2, Sulfuric acid diammonium salt, uses 7783-90-6, Silver
chloride (AgCl), uses 7786-29-0 7786-30-3, Magnesium chloride (MgCl2),
uses 7789-09-5 7789-12-0 7789-29-9, Potassium fluoride (K(HF2))
7789-33-5, Iodine bromide (IBr) 7790-28-5 7790-99-0, Iodine chloride
(ICl) 7803-51-2, Phosphine 8000-41-7, Terpineol 8007-35-0
8018-01-7 9001-37-0 9002-91-9 9003-07-0D, Polypropylene, phenol
derivs. 9003-29-6 9003-63-8 9003-99-0, Peroxidase 9004-82-4
9004-98-2 10028-15-6, Ozone, uses 10031-43-3 10032-15-2
10043-35-3, Boric acid (H3BO3), uses 10049-04-4, Chlorine oxide (ClO2)
10058-23-8 10101-41-4 10124-37-5 10154-75-3 10187-52-7
10198-23-9 10222-01-2 10222-01-2 10235-63-9 10294-64-1
10332-33-9 10339-55-6 10345-79-6 10377-60-3 10378-23-1
10380-28-6 10453-86-8 10460-00-1 10482-56-1 10486-00-7
10543-57-4 10588-01-9 10588-15-5 10595-49-0 10605-21-7
10605-21-7D, Methyl 1H-benzimidazol-2-ylcarbamate, compds. with
benzenesulfonic acid mono-C10-14-alkyl derivs. 11031-45-1, Santalol
11050-62-7 11084-85-8, Sodium hypochlorite phosphate (Na13(ClO)(PO4)4)
11096-42-7 12008-41-2, Boron sodium oxide (B8Na2O13) 12062-24-7
12069-69-1 12122-67-7 12124-97-9, Ammonium bromide ((NH4)Br)
12179-04-3 12267-73-1 12280-03-4 12427-38-2 13014-03-4
13019-22-2, 9-Decen-1-ol 13052-19-2 13108-52-6 13149-79-6
13167-25-4 13197-76-7 13254-34-7 13351-61-6 13426-91-0
13435-05-7 13463-41-7 13463-67-7, Titanium oxide (TiO2), uses
13516-27-3 13517-11-8, Hypobromous acid 13532-18-8 13590-97-1
13701-59-2 13707-65-8 13720-12-2 13755-29-8 13824-96-9
13826-83-0 13840-33-0 13863-41-7, Bromine chloride (BrCl) 13877-91-3
13980-04-6 14073-97-3 14371-10-9 14548-60-8 14576-08-0
14667-55-1 14676-61-0D, 1-Propanamine, 3-(tridecyloxy)-, branched
14762-38-0 14816-18-3 14915-37-8 14936-67-5 15323-35-0
15435-29-7 15510-55-1 15627-09-5 15630-89-4 15707-23-0
15733-22-9 15739-09-0 15809-19-5 15986-80-8 16079-88-2
16219-75-3D, 5-Ethylidenebicyclo[2.2.1]hept-2-ene, reaction products with
boron trifluoride and 2-propanol 16228-00-5 16409-43-1 16491-36-4
16752-77-5 16828-95-8 16871-71-9 16893-85-9 16919-19-0
16949-65-8 16961-83-4 17084-08-1 17342-21-1 17804-35-2
18181-70-9 18181-80-1 18205-85-1 18339-16-7 18472-51-0
18479-54-4 18479-57-7 18675-16-6 18675-17-7 18794-84-8
18829-56-6 18854-01-8 18972-56-0 19014-05-2 19093-20-0
19379-90-9 19388-87-5 19578-81-5 19766-89-3 19819-98-8
19870-74-7 20013-73-4 20018-09-1 20543-04-8 20545-92-0
20662-57-1 20679-58-7 20834-59-7 20859-73-8, Aluminum phosphide
(AlP) 21129-27-1 21145-77-7 21564-17-0 21757-82-4 21834-92-4
22009-37-6 22205-45-4, Copper sulfide (Cu2S) 22221-10-9 22248-79-9
22781-23-3 22882-89-9 22882-91-3 22936-75-0 22981-54-0
23031-36-9 23495-12-7 23560-59-0 23564-05-8 23726-92-3
23726-94-5 23787-90-8 24019-05-4 24048-13-3 24111-17-9
24124-25-2 24291-45-0 24634-61-5 24720-09-0 24851-98-7
25068-14-8 25155-18-4 25155-29-7 25167-82-2 25225-10-9
25254-50-6 25265-71-8 25304-14-7 25377-70-2 25628-84-6
25655-41-8 25988-97-0 26002-80-2 26062-79-3 26172-55-4
26248-98-6 26354-18-7 26530-03-0 26530-20-1 26545-49-3
26617-87-8 26635-93-8 26781-23-7 27083-27-8 **27176-87-0**
27236-65-3 27253-29-8 27323-41-7
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(bactericide combinations in detergents)

IT 27697-50-3 28069-74-1 28159-98-0 28219-61-6 28302-36-5
28387-62-4 28434-00-6 28434-01-7 28558-32-9 28645-51-4,
Oxacycloheptadec-10-en-2-one 28728-61-2 28772-56-7 28777-01-7
28805-58-5 29232-93-7 29350-73-0 29463-06-7 29873-30-1
29873-33-4 29973-13-5 30007-47-7 30388-01-3 30560-19-1
30772-79-3 31075-24-8 31195-95-6 31218-83-4 31501-11-8
31512-74-0 31906-04-4 32276-75-8 32289-58-0 32388-55-9
33089-61-1 33704-61-9 33939-64-9 33972-49-5 34375-28-5

34395-72-7 34413-35-9 34681-10-2 34911-46-1 35109-57-0
35206-70-3 35285-68-8 35285-69-9 35367-38-5 35445-70-6
35554-44-0 35575-96-3 35691-65-7 35950-52-8 36059-35-5
36362-09-1 36631-23-9 36734-19-7 37139-99-4 37228-06-1
37306-10-8, Chromium copper boride 38083-17-9 38260-54-7
38460-95-6D, 10-Undecenoyl chloride, reaction products with protein hydrolyzates, potassium salts 38465-60-0 38664-03-8 38811-14-2
39236-46-9 39300-45-3 39354-45-5 39515-40-7 39650-63-0,
1H-Benzimidazole-2-pentanamine 39660-17-8 39758-90-2 40027-80-3
40188-41-8 40596-69-8 41096-46-2 41877-16-1 42370-07-0
42436-34-0 42534-61-2 43143-11-9 44992-01-0 46830-22-2
46917-07-1 50542-90-0 50650-76-5 51015-28-2 51015-29-3
51026-28-9 51200-87-4 51566-62-2 51580-86-0 51630-58-1
52299-20-4 52304-36-6 52315-07-8 52513-11-8 52645-53-1
52684-21-6 52684-23-8 52918-63-5 53082-58-9 53488-14-5
53720-80-2 53727-58-5 54262-78-1 54406-48-3 54427-07-5, Copper boride 54464-57-2 54720-15-9 54779-21-4 55142-08-0 55406-53-6
55566-30-8 55722-59-3 55965-84-9 56073-07-5 56073-10-0
56148-34-6 56148-37-9 56148-40-4 56289-76-0 56427-82-8
56709-13-8 56996-62-4, Glokill 77 57006-76-5 57382-78-2 57413-95-3
57503-06-7 57520-17-9 57576-09-7 57837-19-1 58206-95-4
58249-25-5 58769-20-3 59323-76-1 59324-17-3 59355-53-2, Citrex S 5
60114-62-7D, 1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-coco acyl derivs., inner salts 60168-88-9 60207-31-0 60207-90-1
60239-68-1 60568-05-0 60736-58-5 60763-40-8 60784-31-8
60812-23-9 61692-81-7 61692-84-0 61702-91-8 61842-86-2
62476-84-0D, Guanidine, N,N'''-1,3-propanediylbis-, N-coco alkyl derivs., acetates 62755-21-9 63085-03-0 63333-35-7 63500-71-0 63943-38-4
64359-81-5 64440-88-6 64628-44-0 64665-57-2 64988-06-3
65059-43-0 65289-97-6 65289-98-7 65290-00-8 65400-98-8
65630-22-0 65694-09-9 65733-16-6 65733-18-8 66062-78-0
66063-61-4 66065-55-2D, Benzenemethanaminium, N-(3-aminopropyl)-N,N-dimethyl-, chloride, N-coco acyl derivs. 66091-24-5D, 1-Propanaminium, 3-amino-N-ethyl-N,N-dimethyl-, N-lanolin acyl derivs., Et sulfates
66204-44-2 66215-27-8 66789-18-2 66841-25-6 67100-72-5
67171-34-0 67185-04-0 67228-83-5 67485-29-4 67508-69-4
67633-95-8 67633-98-1 67633-99-2 67634-01-9 67634-12-2
67634-14-4 67634-15-5 67634-25-7 67634-26-8 67747-09-5
67772-01-4 67801-33-6 67801-44-9 67801-47-2 67845-46-9
67846-68-8 68085-85-8 68134-42-9 68155-66-8 68155-67-9
68188-98-7 68213-85-4 68224-19-1 68359-37-5 68480-15-9
68480-16-0 68527-77-5 68527-84-4 68738-96-5 68797-57-9
68890-66-4 68901-15-5 68929-85-1 68959-20-6 68991-96-8
68991-97-9 69094-18-4 69153-35-1 70161-44-3 70680-04-5
70680-05-6 70754-17-5 70775-75-6 70788-30-6 70799-70-1
70862-65-6 71297-57-9 71297-58-0 71297-59-1 71646-36-1
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(bactericide combinations in detergents)

IT 72089-08-8 72490-01-8 72963-72-5 73264-51-4 73337-96-9D, β-Alanine, N-(2-aminoethyl)-N-(2-hydroxyethyl)-, N-C8-18-acyl derivs.
74774-67-7 75033-25-9 75147-23-8 76382-10-0D, β-Alanine, N-(3-aminopropyl)-, N-coco alkyl derivs. 76653-57-1 76653-58-2
76733-35-2 76749-58-1 76902-90-4 77492-36-5 77492-37-6
77492-44-5 78144-21-5 78491-02-8 78587-05-0 79267-18-8
79267-19-9 79267-20-2 79267-21-3 79267-22-4 81335-77-5
81412-43-3, Tridemorph 81741-28-8 81786-73-4 81786-74-5 81786-75-6
81867-37-0 82007-94-1 82432-76-6 82432-77-7 82432-78-8
82633-79-2 82657-04-3 82790-32-7 82790-35-0 82790-36-1
82790-38-3 82801-21-6 82801-25-0 82801-26-1 82801-27-2
83145-28-2 83285-27-2 83601-71-2 84030-30-8 84233-90-9
84233-92-1 84473-74-5 84631-78-7 84643-53-8 85264-33-1
86115-11-9 86479-06-3 86880-59-3D, N-coco acyl derivs. 87118-95-4
88308-77-4 88558-41-2 88995-31-7 89415-87-2 89960-92-9
90117-66-1 91326-34-0 91465-08-6 92368-90-6 92585-24-5
93345-88-1 93345-89-2 93345-90-5 93345-91-6 93345-92-7

93778-80-4 93839-34-0 93856-82-7 93856-83-8 94005-95-5
94248-21-2 94313-91-4 94361-06-5 94857-31-5 95737-68-1
96565-37-6 97331-89-0 97331-92-5 97331-93-6 101463-69-8
102851-06-9 103055-07-8 103298-77-7 103298-78-8 104063-25-4
104133-05-3 104653-34-1 105024-66-6 105726-67-8 107534-96-3
107879-22-1 108080-74-6 108166-32-1 108189-00-0 109780-03-2
109835-67-8 109835-68-9 109835-69-0 111099-92-4 111099-93-5
111337-53-2 114955-18-9 114955-19-0 114955-20-3 115044-19-4
116255-48-2 118712-89-3 119515-20-7 119515-38-7 **120068-37-3**
120217-93-8 120217-94-9 120983-64-4 121227-99-4 122538-65-2
122795-41-9 125116-23-6 125770-49-2 125770-50-5 125770-51-6
126646-06-8 126646-07-9 **128275-31-0** 136426-54-5
138261-41-3 138265-88-0, Boron zinc hydroxide oxide (B12Zn4(OH)14O15)
138416-95-2 138698-36-9 140194-01-0, 1,1,3-Propanetricarboxaldehyde
140194-02-1 144768-02-5 146919-78-0 149118-66-1 154194-73-7
154339-84-1, Silver sodium zirconium phosphate
(Ag0.19Na0.47Zr2(HPO4)0.34(PO4)2.66) 154339-85-2 173291-51-5
173423-45-5, Silver sodium zirconium phosphate
(Ag0.44Na0.25Zr2(HPO4)0.3(PO4)2.7) 187615-12-9 188739-94-8
191546-07-3 191546-08-4 199169-27-2 216770-11-5, Silver sodium
zirconium phosphate (Ag0.05Na0.3Zr2(HPO4)0.65(PO4)2.35) 251089-42-6
344931-17-5D, 1-Propanaminium, 3-amino-N-[2-[(2-hydroxyethyl)amino]-2-
oxoethyl]-N,N-dimethyl-, chloride, N-C16-18 acyl derivs. 351224-25-4
351224-26-5
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(bactericide combinations in detergents)

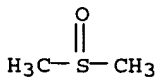
IT 9001-92-7, Protease
RL: NUU (Other use, unclassified); USES (Uses)
(bactericide combinations in detergents)

IT 87-86-5, Pentachlorophenol
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(esters with fatty acids; bactericide combinations in detergents)

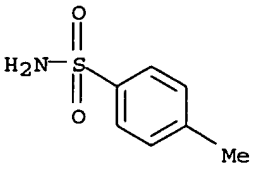
IT 65-85-0, Benzoic acid, uses
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(r; bactericide combinations in detergents)

IT **67-68-5**, uses **70-55-3 98-11-3D**,
Benzenesulfonic acid, mono-C10-14-alkyl derivs., compds. with Me
1H-benzimidazol-2-ylcarbamate, uses **127-65-1 577-11-7**
1085-98-9 2032-65-7 3383-96-8
5329-14-6, Sulfamic acid **7287-19-6 27176-87-0**
120068-37-3 128275-31-0
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified);
BIOL (Biological study); USES (Uses)
(bactericide combinations in detergents)

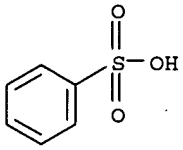
RN 67-68-5 HCAPLUS
CN Methane, sulfinylbis- (9CI) (CA INDEX NAME)



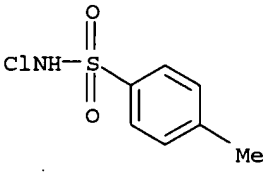
RN 70-55-3 HCAPLUS
CN Benzenesulfonamide, 4-methyl- (9CI) (CA INDEX NAME)



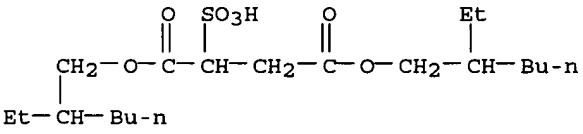
RN 98-11-3 HCAPLUS
CN Benzenesulfonic acid (8CI, 9CI) (CA INDEX NAME)



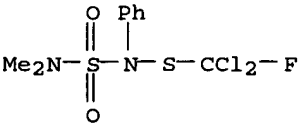
RN 127-65-1 HCAPLUS
CN Benzenesulfonamide, N-chloro-4-methyl-, sodium salt (9CI) (CA INDEX NAME)



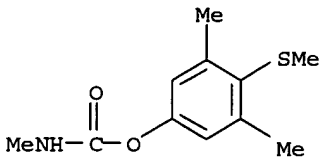
RN 577-11-7 HCAPLUS
CN Butanedioic acid, sulfo-, 1,4-bis(2-ethylhexyl) ester, sodium salt (9CI) (CA INDEX NAME)



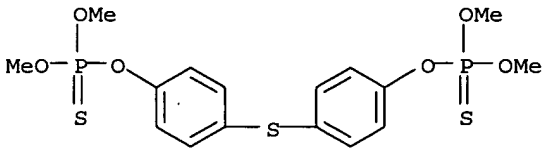
RN 1085-98-9 HCAPLUS
CN Methanesulfenamide, 1,1-dichloro-N-[(dimethylamino)sulfonyl]-1-fluoro-N-phenyl- (9CI) (CA INDEX NAME)



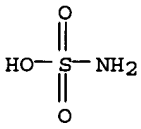
RN 2032-65-7 HCAPLUS
CN Phenol, 3,5-dimethyl-4-(methylthio)-, methylcarbamate (9CI) (CA INDEX NAME)



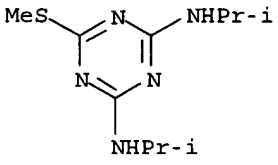
RN 3383-96-8 HCAPLUS
CN Phosphorothioic acid, O,O'-(thiodi-4,1-phenylene) O,O,O',O'-tetramethyl ester (9CI) (CA INDEX NAME)



RN 5329-14-6 HCAPLUS
CN Sulfamic acid (8CI, 9CI) (CA INDEX NAME)



RN 7287-19-6 HCAPLUS
CN 1,3,5-Triazine-2,4-diamine, N,N'-bis(1-methylethyl)-6-(methylthio)- (9CI) (CA INDEX NAME)

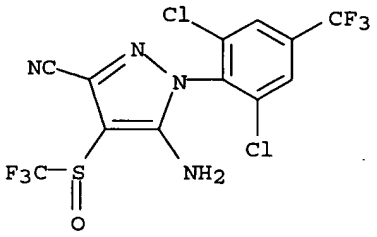


RN 27176-87-0 HCAPLUS
CN Benzenesulfonic acid, dodecyl- (8CI, 9CI) (CA INDEX NAME)

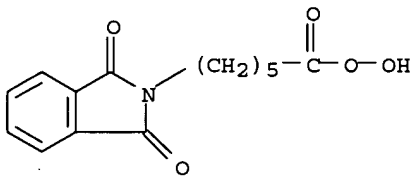
D1—SO_3H

Me—$(CH_2)_{11}$—D1

RN 120068-37-3 HCAPLUS
CN 1H-Pyrazole-3-carbonitrile, 5-amino-1-[2,6-dichloro-4-(trifluoromethyl)phenyl]-4-[(trifluoromethyl)sulfinyl]- (9CI) (CA INDEX NAME)



RN 128275-31-0 HCAPLUS
CN 2H-Isoindole-2-hexaneperoxoic acid, 1,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)



L25 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:305816 HCAPLUS
DN 130:356268
ED Entered STN: 19 May 1999
TI A fast, mild and complete destruction of chemical pollutants is a significant criterion in chemical decontamination
AU Lion, Claude; Da Conceicao, Louis; Sayag, Hugo
CS Institut de topologie et de dynamique des systemes de l'universite Paris-7 Denis-Diderot, associe au CNRS, UPRESA 7086, Paris, 75005, Fr.
SO Comptes Rendus de l'Academie des Sciences, Serie IIc: Chimie (1999), 2(1), 57-62
CODEN: CASCFN; ISSN: 1387-1609
PB Editions Scientifiques et Medicales Elsevier
DT Journal
LA French
CC 59-4 (Air Pollution and Industrial Hygiene)
Section cross-reference(s): 5, 60
AB The chemical decontamination of toxic organophosphorus (pesticides or warfare agents) and sulfur compds. is of increasing importance. These products are destroyed by nucleophilic substitution for organophosphorus and oxidation

of sulfur compds. Peroxy acids, in micellar medium, are interesting for their reactivity on both families. We show here the interest of a new family: the phthalimidoperoxy acids.

ST pesticide decompn phthalimidoperoxy acid; chem warfare agent decompn phthalimidoperoxy acid

IT Chemical warfare agents
Pesticides
(fast, mild and complete destruction of pesticides and chemical warfare agents using phthalimidoperoxy acids)

IT Peroxy acids
RL: NUU (Other use, unclassified); USES (Uses)
(fast, mild and complete destruction of pesticides and chemical warfare agents using phthalimidoperoxy acids)

IT Carboxylic acids, uses
RL: NUU (Other use, unclassified); USES (Uses)
(imidoperoxy; fast, mild and complete destruction of pesticides and chemical warfare agents using phthalimidoperoxy acids)

IT Organic compounds, processes
RL: REM (Removal or disposal); PROC (Process)
(phosphorus-containing; fast, mild and complete destruction of pesticides and chemical warfare agents using phthalimidoperoxy acids)

IT 5797-07-9P, Phthalimidoperacetic acid 5880-39-7P 124931-51-7P
128275-31-0P, Phthalimidoperhexanoic acid
224645-20-9P
RL: IMF (Industrial manufacture); PREP (Preparation)
(fast, mild and complete destruction of pesticides and chemical warfare agents using phthalimidoperoxy acids)

IT 112-02-7, Cetyl trimethyl ammonium chloride
RL: NUU (Other use, unclassified); USES (Uses)
(fast, mild and complete destruction of pesticides and chemical warfare agents using phthalimidoperoxy acids)

IT 64-17-5, Ethanol, reactions 1074-82-4, Potassium phthalimide
RL: RCT (Reactant); RACT (Reactant or reagent)
(fast, mild and complete destruction of pesticides and chemical warfare agents using phthalimidoperoxy acids)

IT **139-66-2**, Diphenyl sulfide 311-45-5, p-Nitrophenyl diethyl phosphate 505-60-2, Yperite **544-40-1**, Dibutyl sulfide
7704-34-9D, Sulfur, compds., processes 99188-19-9
RL: REM (Removal or disposal); PROC (Process)
(fast, mild and complete destruction of pesticides and chemical warfare agents using phthalimidoperoxy acids)

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD

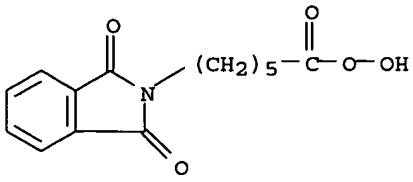
RE

(1) Cristau, H; Sulfur and Silicon 1996, V111, P129
(2) Delmas, G; FR 2676368 1991 HCAPLUS
(3) Delmas, G; FR 9603204 1996
(4) Feldhues, M; Tetrahedron 1985, V41, P4195 HCAPLUS
(5) Gethoffer, H; US 5061807 1991 HCAPLUS
(6) Gonzaga, F; C R Acad Sci Paris serie IIc 1998, V1, P209 HCAPLUS
(7) Hedavatullah, M; Bull Soc Chim Belg 1993, V102, P281
(8) Hedayatullah, M; Sulfur and Silicon 1994, V89, P1 HCAPLUS
(9) Julia, S; J Chem Soc Chem Commun 1978, P742 HCAPLUS
(10) Lion, C; Bull Soc Chim Belg 1990, V99, P127 HCAPLUS
(11) Lion, C; Bull Soc Chim Belg 1991, V100, P555 HCAPLUS
(12) Lion, C; Bull Soc Chim Belg 1992, V101, P249 HCAPLUS
(13) Lion, C; Bull Soc Chim Belg 1994, V103, P115 HCAPLUS
(14) Lion, C; Bull Soc Chim Belg 1997, V106, P221 HCAPLUS
(15) Ogata, Y; J Chem Soc Perkin Trans II 1973, P755 HCAPLUS

IT **128275-31-0P, Phthalimidoperhexanoic acid**
RL: IMF (Industrial manufacture); PREP (Preparation)
(fast, mild and complete destruction of pesticides and chemical warfare agents using phthalimidoperoxy acids)

RN 128275-31-0 HCAPLUS

CN 2H-Isoindole-2-hexaneperoxoic acid, 1,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)



IT 139-66-2, Diphenyl sulfide 544-40-1, Dibutyl sulfide
RL: REM (Removal or disposal); PROC (Process)
(fast, mild and complete destruction of pesticides and chemical warfare agents using phthalimidoperoxy acids)
RN 139-66-2 HCAPLUS
CN Benzene, 1,1'-thiobis- (9CI) (CA INDEX NAME)

Ph—S—Ph

RN 544-40-1 HCAPLUS
CN Butane, 1,1'-thiobis- (9CI) (CA INDEX NAME)

n-Bu—S—Bu-n

=> b home
FILE 'HOME' ENTERED AT 15:58:04 ON 15 JUN 2005

=>

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=> d his full

     (FILE 'HOME' ENTERED AT 07:45:39 ON 16 JUN 2005)

     FILE 'HCAPLUS' ENTERED AT 07:45:57 ON 16 JUN 2005
               ACT NWAC2608/Q
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L1             QUE ABB=ON  PLU=ON  C14H15NO5 AND NC4-C6/ES
L2             QUE ABB=ON  PLU=ON  (PMS OR MAN OR IDS)/CI OR UNSPECIFED OR
               COMPD OR COMPOUND OR (D OR T)/ELS
L3             QUE ABB=ON  PLU=ON  L1 NOT L2
L4             QUE ABB=ON  PLU=ON  L3 AND NR=2
L5             QUE ABB=ON  PLU=ON  128275-31-0/BI AND L4
L6             QUE ABB=ON  PLU=ON  L5 OR ((6 OR E) (1A) (PHTHALIMIDOPE
               ROXY OR PHTHAL? (1A)(IMIDOPEROX? OR IMID? (1A)PEROX?) (1A)
               HEXANOIC) OR PHTHALIMIDOPERHEXANOIC OR PHTHAL? (1A)(PERHEXAN?
               OR PER?(1A)HEXAN?) OR PHTHALIMID? (1A)PERHEXAN?)(1A)ACID#
              ---------

     FILE 'WPIX' ENTERED AT 07:46:16 ON 16 JUN 2005
L7            21 SEA ABB=ON  PLU=ON  (((6 OR EPSILON) (1A) (PHTHALIMIDOPEROXY
               OR PHTHAL? (1A)(IMIDOPEROX? OR IMID? (1A)PEROX?) (1A) HEXANOIC)
                OR PHTHALIMIDOPERHEXANOIC OR PHTHAL? (1A)(PERHEXAN? OR
               PER?(1A)HEXAN?) OR PHTHALIMID? (1A)PERHEXAN?)(1A)ACID#)/BIX
               E PHTHAL/DRN
               E PHTHAL/DCN
               E PHTHAL/CN
L8             4 SEA ABB=ON  PLU=ON  ("PHTHALIMIDOPEROXYHEXANOIC ACID"/CN OR
               PHTHALIMIDOPEROXYHEXANOIC-ACID/CN OR "PHTHALIMIDOPEROXYOCTANOIC
                ACID"/CN OR PHTHALIMIDOPEROXYOCTANOIC-ACID/CN)
               E PHTHALIMIDOPEROXYHEXANOIC ACID/DRN
               E PHTHALIMIDOPEROXYHEXANOIC ACID/DCN
L9           227 SEA ABB=ON  PLU=ON  (C07D401-12 AND C07C409)/IPC OR (E10-A04B1C
                AND (B06-D03 OR C06-D03 OR E06-D03))/MC OR (D611 (S) J171(S)K9
               10)/M0,M1,M2,M3,M4,M5,M6
L10        23094 SEA ABB=ON  PLU=ON  N050/M0,M1,M2,M3,M4,M5,M6 OR "E11-E"/MC OR
               C07B033/IPC
L11       144779 SEA ABB=ON  PLU=ON  (E10-H01 OR E10-H01A OR E10-H01B OR
               B10-H01 OR C10-H01)/MC OR H59?/M0,M1,M2,M3,M4,M5,M6 OR
               C07C043/IPC
L12        49199 SEA ABB=ON  PLU=ON  C07C315-02/IPC OR (B10-A10 OR C10-A10 OR
               E10-A10?)/MC OR (K422 OR K433 OR K441)/M0,M1,M2,M3,M4,M5,M6
L13       102510 SEA ABB=ON  PLU=ON  C07C315-02/IPC OR (K431 OR K421)/M0,M1,M2,M
               3,M4,M5,M6
L14        50377 SEA ABB=ON  PLU=ON  C07C317/IPC OR (B10-A10 OR C10-A10 OR
               E10-A10?)/MC OR (K422 OR K433 OR K441)/M0,M1,M2,M3,M4,M5,M6
L15        22242 SEA ABB=ON  PLU=ON  L11 AND L12
L16        16242 SEA ABB=ON  PLU=ON  L14 AND L13
L17          143 SEA ABB=ON  PLU=ON  (L15 OR L16) AND L10
               E ALLEGRINI P/AU
L18           26 SEA ABB=ON  PLU=ON  "ALLEGRINI P"/AU
               E NAPOLETANO L/AU
               E RAZZETTI G/AU
L19            6 SEA ABB=ON  PLU=ON  "RAZZETTI G"/AU
               E NAPOLETANO C/AU
L20            4 SEA ABB=ON  PLU=ON  "NAPOLETANO C"/AU
L21           21 SEA ABB=ON  PLU=ON  DINAMIT?/CS,PA
L22            0 SEA ABB=ON  PLU=ON  L17 AND (L18 OR L19 OR L20 OR L21)
L23            3 SEA ABB=ON  PLU=ON  (L15 OR L16) AND (L18 OR L19 OR L20 OR
               L21)
L24            0 SEA ABB=ON  PLU=ON  L17 AND (L7 OR L8 OR L9)
L25        31352 SEA ABB=ON  PLU=ON  (L15 OR L16) NOT L23
L26           83 SEA ABB=ON  PLU=ON  L25 AND (L7 OR L8 OR L9)
L27            2 SEA ABB=ON  PLU=ON  L25 AND (L7 OR L8)
L28            1 SEA ABB=ON  PLU=ON  L23 AND (L7 OR L8 OR L9)
L29            3 SEA ABB=ON  PLU=ON  L23 OR L28
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L30          81 SEA ABB=ON  PLU=ON  L26 NOT L27
L31          45 SEA ABB=ON  PLU=ON  L30 NOT (PY>2003 OR AY>2003 OR PRY>2003)

=> b wpix
FILE 'WPIX' ENTERED AT 09:05:36 ON 16 JUN 2005
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FILE LAST UPDATED:          13 JUN 2005      <20050613/UP>
MOST RECENT DERWENT UPDATE:     200537        <200537/DW>
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    PLEASE CHECK:
http://thomsonderwent.com/support/dwpiref/reftools/classification/code-revision/
    FOR DETAILS. <<<

=> d all l29 tot

L29  ANSWER 1 OF 3  WPIX  COPYRIGHT 2005 THE THOMSON CORP on STN
AN   2004-698791 [68]   WPIX
DNC  C2004-247137
TI   Oxidizing thioethers to sulfoxides/sulfones (or sulfoxides to sulfones),
     used to prepare biologically active compound containing sulfinyl/sulfonyl
     group, comprises oxidizing thioethers/sulfoxides with epsilon-
     phthalimidoperhexanoic acid.
DC   B05 C03
IN   ALLEGRINI, P; CASTALDI, G; NAPOLETANO, C;
     RAZZETTI, G
PA   (ABBR-N) ABBREVIATED DIPHARMA SPA; (DINA-N) DINAMITE DIPHARMA SPA
     ; (DIPH-N) DIPHARMA SPA
CYC  34
PI   US 2004192929   A1 20040930 (200468)*       5    C07C317-02     <--
     EP 1466897      A1 20041013 (200468)  EN         C07C315-02     <--
         R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV
            MC MK NL PL PT RO SE SI SK TR
     CA 2461833      A1 20040928 (200470)  EN         C07C317-44     <--
ADT  US 2004192929 A1 US 2004-801608 20040317; EP 1466897 A1 EP 2004-5420
     20040308; CA 2461833 A1 CA 2004-2461833 20040325
PRAI IT 2003-MI617        20030328
IC   ICM  C07C315-02; C07C317-02; C07C317-44
     ICS  C07C317-14; C07D401-12
AB   US2004192929 A UPAB: 20041026
     NOVELTY - Oxidation of thioethers to sulfoxides or sulfones; or oxidation
     of sulfoxides to sulfones comprises treatment of thioethers or sulfoxides
     with an oxidizing amount of epsilon -phthalimidoperhexanoic
     acid.
          USE - The process is useful for the preparation of biologically
     active compounds containing a sulfinyl or sulfonyl group (particularly
     modafinil, modafinil-sulfone, sulindac, sulindac-sulfone, dapsone,
     omeprazole, pantoprazole, lansoprazole, timoprazole, picoprazole,
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rabeprazole or exomeprazole) (claimed). The sulfinyl- or sulfonyl-organic compounds are useful as biologically active compounds or as intermediates in their preparation. The epsilon -**phthalimidoperhexanoic acid** is useful in the preparation of cosmetic formulations and detergents for domestic or industrial use. The process is useful in the preparation of compounds of industrial interest, in particular pharmaceuticals for human or veterinary use.

ADVANTAGE - The epsilon -**phthalimidoperhexanoic acid** can be easily and safely handled and used on an industrial scale without the need of particular plants or specific safety procedures. The epsilon -**phthalimidoperhexanoic acid** is also a stable, commercially available, solid and cheap product; and particularly epsilon -**phthalimidoperhexanoic acid** and its reduced by-product (epsilon -phthalimidohexanoic acid) are substantially low polluting and can be advantageously used on a large scale.

Dwg.0/0

FS CPI
FA AB; DCN
MC CPI: B06-D05; **B10-A10**; C06-D05; **C10-A10**

L29 ANSWER 2 OF 3 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2004-561853 [54] WPIX
DNC C2004-205362
TI Preparation of benzo(d)isoxazol-3-yl-methanesulfonic acid useful in the synthesis of zonisamide involves reacting 2,2-dioxo-2,3-dihydro-benzo(e)(1,2)oxathiin-4-one oxime with a basic agent.
DC B02
IN **ALLEGRINI, P**; BOLOGNA, A; CASTALDI, G; LUCCHINI, V; MANTEGAZZA, S; **RAZZETTI, G**
PA (DINA-N) **DINAMITE DIPHARMA SPA**
CYC 107
PI WO 2004063173 A1 20040729 (200454)* EN 22 C07D261-20
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
AU 2003298248 A1 20040810 (200479) C07D261-20
ADT WO 2004063173 A1 WO 2003-EP14919 20031224; AU 2003298248 A1 AU 2003-298248 20031224
FDT AU 2003298248 A1 Based on WO 2004063173
PRAI IT 2003-MI1383 20030704; IT 2003-MI26 20030110
IC ICM C07D261-20
ICS C07D327-06
AB WO2004063173 A UPAB: 20040823
NOVELTY - Preparation of benzo(d)isoxazol-3-yl-methanesulfonic acid (I) or its salt involves reacting 2,2-dioxo-2,3-dihydro-benzo(e)(1,2)oxathiin-4-one oxime (III) with a basic agent.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) lithium salt of (I) or a salt of (I) with an organic base (e.g. secondary or tert-amine);

(2) crystalline form of (III) and its preparation; and

(3) preparation of zonisamide.

ACTIVITY - Anticonvulsant; CNS-Gen.

MECHANISM OF ACTION - None given.

USE - In the preparation of benzo(d)isoxazol-3-yl-methanesulfonic acid or its salts useful intermediate in the synthesis of zonisamide (claimed), a known medicament having antiepileptic, anticonvulsive and antineurotoxic activities.

ADVANTAGE - The process allows to prepare benzo(d)isoxazol-3-yl-methanesulfonic acid with less environmental impact, in purer form and higher yield than with the method reported in the prior art. Zonisamide is prepared in highly pure form and good yield, suitable for the preparation

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     on an industrial scale.
     Dwg.0/0
FS   CPI
FA   AB; GI; DCN
MC   CPI: B06-C; B06-E01; B14-J01; B14-J07

L29  ANSWER 3 OF 3  WPIX  COPYRIGHT 2005 THE THOMSON CORP on STN
AN   2004-042427 [04]   WPIX
DNC  C2004-017356
TI   Preparation of 2-((diphenylmethyl)sulfinyl)acetamide, useful for treating
     idiopathic narcolepsy, involves oxidation of sodium-2-
     ((diphenylmethyl)sulfenyl)acetate to the corresponding sulfoxide and the
     derivatization.
DC   B05
IN   CASTALDI, G; LUCCHINI, V; TARQUINI, A
PA   (DINA-N) DINAMITE DIPHARMA SPA; (DIPH-N) DIPHARMA SPA
CYC  104
PI   WO 2003095423   A1 20031120 (200404)* EN    8    C07C315-02     <--
        RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS
            LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
         W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
            DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
            KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL
            PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU
            ZA ZM ZW
     AU 2003227668   A1 20031111 (200442)             C07C315-02     <--
     EP 1503983      A1 20050209 (200512)  EN         C07C315-02     <--
         R: AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LT LU LV
            MC MK NL PT RO SE SI SK TR
     KR 2004108789   A  20041224 (200528)             C07C315-02     <--
ADT  WO 2003095423 A1 WO 2003-EP4229 20030423; AU 2003227668 A1 AU 2003-227668
     20030423; EP 1503983 A1 EP 2003-725083 20030423, WO 2003-EP4229 20030423;
     KR 2004108789 A KR 2004-718040 20041109
FDT  AU 2003227668 A1 Based on WO 2003095423; EP 1503983 A1 Based on WO
     2003095423
PRAI IT 2002-MI991        20020510
IC   ICM  C07C315-02
     ICS  C07C315-04; C07C317-44
AB   WO2003095423 A UPAB: 20040115
     NOVELTY - Preparation of 2-((diphenylmethyl)sulfinyl)acetamide (I)
     involves oxidation of sodium-2-((diphenylmethyl)sulfenyl)acetate with
     sodium hypochlorite to give sodium-2-((diphenylmethyl)sulfinyl)acetate
     (II); hydrolysis of (II) to give 2-((diphenylmethyl)sulfinyl)acetic acid
     (III); and conversion of (III) to (I) by treatment with condensing agent
     and ammonia.
          DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for
     sodium-2-((diphenylmethyl)sulfinyl)acetate as new.
          ACTIVITY - CNS Gen.
          MECHANISM OF ACTION - alpha 1-Adrenergic agonist.
          USE - For preparation of 2-((diphenylmethyl)sulfinyl)acetamide
     (claimed), useful for the treatment of idiopathic narcolepsy.
          ADVANTAGE - The process prevents sulfone formation and directly forms
     (I) with high purity. The process does involves use of dimethyl sulfate,
     which is carcinogenic reagent.
     Dwg.0/0
FS   CPI
FA   AB; DCN
MC   CPI: B10-A10; B14-J01A2; B14-J01A4; B14-J02C1


=> d all abeq tech l27 tot

L27  ANSWER 1 OF 2  WPIX  COPYRIGHT 2005 THE THOMSON CORP on STN
AN   2005-033171 [04]   WPIX
DNC  C2005-010958
TI   Production of organic compounds with functional oxidized groups, e.g.
```

epoxide compounds for use as monomers, involves reacting an oxidizable precursor, e.g. an olefin, with an imidoaromatic percarboxylic acid.

DC A41 D21 D25 E13
IN BUYLE, O; LORENT, K; MATHIEU, V
PA (SOLV) SOLVAY BELGE SA; (SOLV) SOLVAY & CIE
CYC 108
PI FR 2855824 A1 20041210 (200504)* 14 C07D303-14
WO 2004106313 A1 20041209 (200504) FR C07D301-14
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
ADT FR 2855824 A1 FR 2003-6718 20030603; WO 2004106313 A1 WO 2004-EP50990 20040602
PRAI FR 2003-6718 20030603
IC ICM C07D301-14; C07D303-14
ICS C07C317-04; C07D303-04; C07D303-08; C07D305-06; C07D307-33; C07D309-30; C07D313-04
AB FR 2855824 A UPAB: 20050117
NOVELTY - A method for the production of organic compounds with functional oxidized groups involves reacting a precursor containing an oxidizable function (I) with an imidoaromatic percarboxylic acid (II).
USE - Compounds obtained by this method are used, e.g. as monomers, ingredients of cosmetic compositions and surfactants.
ADVANTAGE - Enables the production of organic compounds with functional oxidized groups without the disadvantages of prior-art methods using peracetic acid as oxidizing agent, e.g. possible hydrolysis of sensitive substrates and unsatisfactory yield and/or selectivity.
Dwg.0/0
FS CPI
FA AB; DCN
MC CPI: A01-E07; D08-B; D08-B13; E05-K; E06-A02D; E07-A03A; E10-A02; E10-A03; E10-A04B; E10-A09A; E10-A09B; E10-A09C; E10-A10; E10-A18A; E10-C02; E10-C03; E10-C04; E10-E02P; E10-E04
TECH UPTX: 20050117
TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Method: Reaction for 10 minutes to 50 hours at -100 to +150 degrees C and 0.5-100 bar in a reaction mixture containing 0.1-90 wt.% (II), substantially in the absence of water and preferably with progressive or continuous addition of (II) (as the pure substance or in organic solvent).
Preferred Precursors: Optionally substituted cyclic or acyclic olefins or ketones, compounds with at least one oxidizable sulfur, selenium, nitrogen or phosphorus atom, or oxidizable fluoro compounds.
Preferred Peracid: epsilon-**Phthalimido-perhexanoic acid.**

L27 ANSWER 2 OF 2 WPIX COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2001-136570 [14] WPIX
DNC C2001-039979
TI Whitening teeth using peroxyamidophthalimides, sulfoperbenzoic acid, monoperoxyphthalic acid or (per)acetylatedperboric acid with isoquinolinium as catalysts.
DC B02 D21 E13
IN JOINER, A; THORNTHWAITE, D W
PA (CHEO) CHESEBROUGH PONDS USA CO DIV CONOPCO INC
CYC 1
PI US 6165448 A 20001226 (200114)* 5 A61K007-16
ADT US 6165448 A US 1999-401879 19990923
PRAI EP 1998-307835 19980925
IC ICM A61K007-16
ICS A61K007-20
AB US 6165448 A UPAB: 20010312
NOVELTY - Method for whitening teeth comprises applying an oral care

composition containing peroxyamidophthalimides, sulfoperbenzoic acid, monoperoxyphthalic acid or (per)acetylatedperboric acid with isoquinolinium salts as catalysts.

DETAILED DESCRIPTION - A method for whitening teeth comprises applying an oral composition comprising (1) organic peroxy compound selected from: (a) peroxy amido phthalimides of formula (I); (b) sulfoperbenzoic acid; (c) monoperoxyphthalic acid; and (d) (per)acetylperoxyboric acid or salts of (a) to (d); and (2) an imine quaternary salt of formula (II) and brushing the teeth with the composition.

R = H or 1-4C alkyl;

n = 1-5;

X = CO or SO2;

R1 = H or 1-8C alkyl;

R2 = H, phenyl or keto group;

R3-R5 = H or OR8;

R8 = 1-4C alkyl;

R6, R7 = H or 1-4C alkyl;

X = counterion stable in the presence of oxidizing agent.

USE - The composition is useful for whitening teeth.

ADVANTAGE - The composition provides improved whitening of teeth. The catalysts react with the peroxy compounds to provide more reactive oxygen species.

Dwg.0/0

FS CPI

FA AB; GI; DCN

MC CPI: B06-D03; B06-F01; B10-A04; B14-N06; D08-B08; E05-C02; E06-D03; E06-F01; E10-A04B

TECH UPTX: 20010312

TECHNOLOGY FOCUS - ORGANIC CHEMISTRY - Preferred Method: The peroxy compound is N-**phthalimido hexanoic peroxy acid** (PAP) or sulfoperbenzoic acid potassium salt (KSPB). The imine quaternary salt is a compound in which R1 is Me and R2 to R6 are H an X is tosylate. The composition also comprises a fluoride compound and has a pH of 7-8.5.

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